Information Worth Leaking!

Water conservation is important in Hillsboro, especially during peak summertime usage when water demand is at its highest and rainfall is sporadic at best. Using water efficiently keeps peak usage down, which saves millions of dollars in infrastructure and supply costs.

One way to improve water efficiency is to reduce water loss through leaks. Hillsboro works hard to detect and repair water main leaks as soon as they occur, so that minimal water is lost and more reaches its intended destination. System operators are proactive in replacing old pipes that are at high risk for leaks and vigilant about checking for leaks throughout the distribution system. Some leaks find their way to the surface where they are easily spotted by the puddling or spray that occurs near a break, and alert customers often report leaks to the Water Department. Other times, operators must use special earphones to hear the underground rush of water escaping the pipe. Once located, the leak is repaired by patching or replacing the section of pipe that suffered the break.

Leaks can also take place on the private side of the meter. You are responsible for the repair of any leak that happens between your meter and your house. If you think you have a leak in your service line, here is a simple leak detection method that you can perform:

First, turn off all faucets and any appliances that use water (such as your washing machine and dishwasher). Next, go outside and find your water meter, which is usually close to the curb, and lift the cover to reveal the meter dial. Find the "tattletale" triangle on the dial. If it is moving, you probably have a leak somewhere in your system. Timely location and repair of water leaks will keep water in your pipe and money in your pocket. For more information about leaks or leak detection, please call (503) 615-6732.

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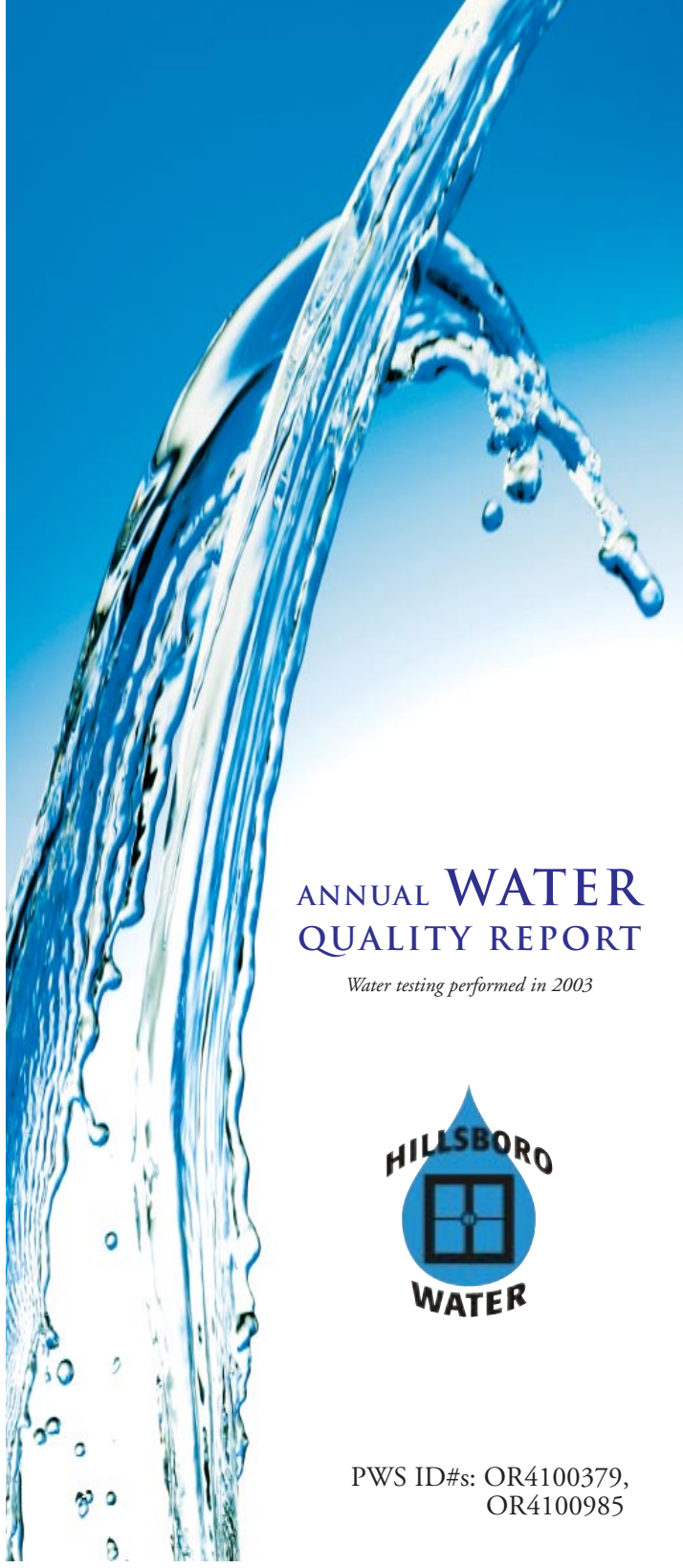
City of Hillsboro
123 W. Main Street
Hillsboro, OR 97123

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



ANNUAL WATER QUALITY REPORT

Water testing performed in 2003

HILLSBORO WATER

PWS ID#s: OR4100379, OR4100985

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.

Community Participation

You are invited to attend a Utilities Commission meeting to voice comments about your drinking water. The Commission meets at 12:45 p.m. on the second Tuesday of each month at 123 West Main Street. Agendas are listed on our Web site (www.ci.hillsboro.or.us) or call (503) 615-6586 for more information.

Continuing Our Commitment

Once again, Hillsboro Water proudly presents its annual water quality report. This edition covers all testing completed from January through December 2003. 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 drinking water of the finest quality. 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.

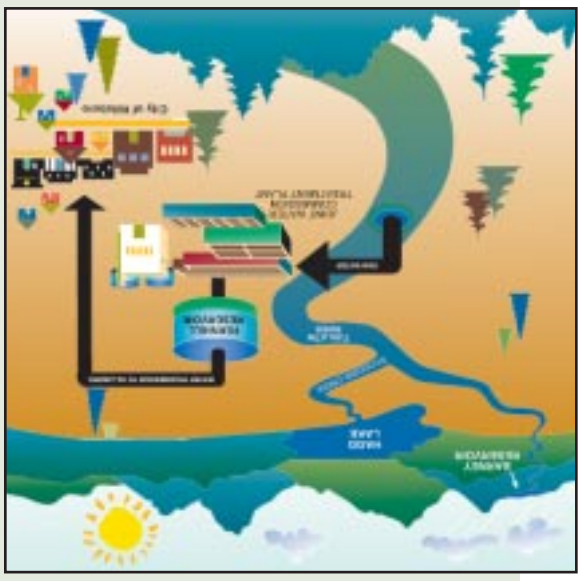
For more information about this report, or for any questions relating to your drinking water, please call Tacy Steele, Water Programs Coordinator, at (503) 615-6732.

Where Does My Water Come From?

All of the water running out your tap is treated surface water, which means it comes out of a river or reservoir. Hillsboro's winter water source is the upper Tualatin River. In summer, the water level drops too low for municipal use, so Hillsboro relies upon water stored in the Barney Reservoir and Hagg Lake to meet customer needs.

Hillsboro's water is drawn out of the upper Tualatin River for filtration and treatment at either the Cherry Grove Slow Sand Filter Plant (SSF) or the Joint Water Commission (JWC) Treatment Plant. Both plants operate 24 hours a day, 365 days a year. The SSF Plant can treat up to three million gallons per day (MGD) and it provides water to Cherry Grove, City of Gaston, L.A. Water Co-op, Scoggins Valley, and Dilley. The JWC Plant provides water to Hillsboro, Forest Grove, Beaverton, Tigard, and the Tualatin Valley Water District (TVWD). The JWC Plant is the second largest water treatment plant in Oregon, with a treatment capacity of 70 MGD.

After treatment, SSF water flows through an 18-inch line to the City of Cornelius. A 45-inch line delivers treated water from the JWC Plant to south Hillsboro and continues to the City of Beaverton. A 72-inch intertie connects the 45-inch line to a 66-inch line that carries water to the north end of Hillsboro and TVWD. There are approximately 275 miles of distribution lines in the City of Hillsboro that are fed by the transmission lines. These lines provide water to 19,800 business and residential customers. The City of Hillsboro typically uses 10 MGD, but summer usage can push that demand up to 20 MGD, primarily due to outdoor watering.



Barney Reservoir

How Is My Water Treated And Purified?

The treatment process consists of a series of steps. First, raw water is drawn from the Tualatin River intake and pumped directly to a mixing tank where chlorine and alum are added. The chlorine serves as a disinfectant and the addition of alum causes small particles to adhere to one another (called "floc") making them heavy enough to settle into a basin from which sediment is removed. After settling, polymer is added for turbidity removal. (Turbidity is caused by particles suspended in the water and is measured using a light deflection technique.) Activated carbon is added periodically, when needed, to remove irregular taste and odor. The water is then filtered through layers of anthracite coal and silicate sand. As suspended particles are removed, turbidity disappears and clear water emerges. Chlorine is added again as a precaution against any bacteria that may still be present. (We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste.) Finally, caustic soda (used to adjust the final pH and alkalinity) is added and the finished water is pumped from clearwell storage to the Fernhill Reservoir. From there it is gravity-fed either to Hillsboro homes and businesses, or to the in-town, finished water reservoirs to be stored.

Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any 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 at levels considered safe for drinking, 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.

City of Hillsboro

REGULATED SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	MCLG	AMOUNT DETECTED	RANGE (LOW-HIGH)	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2003	MRDL=4	MRDLG=4	0.75	0.33-1.01	No	Water additive used to control microbes
Haloacetic Acids [HAAs] (ppb)	2003	60	NA	36.8	27.5-57	No	By-product of drinking water disinfection
Nitrate (ppm)	2003	10	10	1.1	ND-1.1	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2003	80	NA	33.3	28.9-39.2	No	By-product of drinking water disinfection
Turbidity (NTU)[1]	2003	TT	NA	0.94	0.03-0.94	No	Soil runoff

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

City of Hillsboro | Cherry Grove

SUBSTANCE (UNITS)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	HOMES ABOVE AL/TOTAL HOMES	AMOUNT DETECTED (90TH%TILE)	HOMES ABOVE AL/TOTAL HOMES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2002	1.3	1.3	0.20	0/30	0.705	0/5	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2002	15	0	4	0/30	4.5	0/5	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

[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, 100% of all samples taken to measure turbidity met water quality standards.

Substances That Might Be in Drinking Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations 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 contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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 can acquire naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may 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 may also come from gas stations, urban stormwater runoff, and septic systems;

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

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

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 marcesens. 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.

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. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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 allow for a margin of safety.

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 contamination.

NA: Not applicable

ND: Not detected

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

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.

Source Water Assessment

The Department of Environmental Quality (DEQ) and the Oregon Department of Human Services (DHS) recently completed a Source Water Assessment to identify the surface areas that supply water to the Joint Water Commission (JWC) and the Cherry Grove public water system intakes. They also inventoried the potential contaminant sources that may affect the water supply. A total of 306 potential contaminant sources were identified in the JWC-Cherry Grove Drinking water protection area. Of these, 295 are located in sensitive areas and 272 are considered high to moderate risk sources within those sensitive areas. Sensitive areas include areas with high soil permeability, high soil erosion potential, high runoff potential, and areas within 1,000 feet of a river or stream. Potential sources of watershed contamination include the following: agricultural/forest management applications, commercial land uses, residential/municipal land uses, and landslide and clear-cut forest areas. These are the existing potential sources of contamination that could, if improperly managed or released, affect the water quality in the watershed.

The JWC-Cherry Grove Source Water Assessment Report provides additional details on the methodology and results of this assessment. The full report is available for review at the Hillsboro Water Department, 390 West Main Street, Hillsboro, or call (503) 615-6700 for more information.

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