

Health Protection Information Inside!

Este informe contiene información muy importante sobre su agua beber. Copias en español están disponibles en el Hillsboro Civic Center.

City of Hillsboro
150 E. Main Street
Hillsboro, OR 97123
503-615-6702

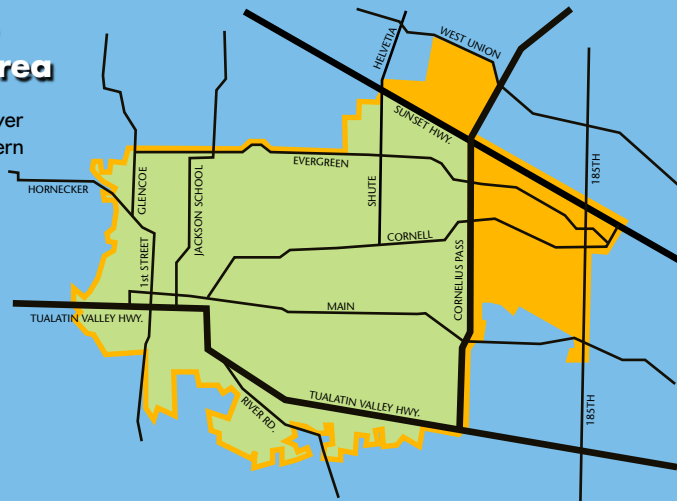
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2015 Drinking Water Quality Report





City of Hillsboro Water Service Area

Service is also provided to over 600 rural customers in Western Washington County.



KEY

-  Hillsboro City Limits
-  Hillsboro Service Area



Based on water quality data from the calendar year 2014

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Hillsboro Water Department's Mission Statement

The City of Hillsboro Water Department is committed to providing drinking water of highest quality and sufficient quantity to its customers, while working to maintain the vision of Hillsboro's Utilities Commission by protecting and providing stewardship for our community's most vital resource.

A Word from the Utilities Commission Chair.

Many of the western states, including parts of Oregon, are experiencing a drought this year. Hillsboro's water supply, which is rain-fed and comes from the Tualatin Watershed, is in good shape. However, even if water shortages don't directly affect our community, they are always a good reminder of the importance of reliability planning for water supplies. Here are some of the ways Hillsboro continues to invest in reliable water supplies in our region:

Upgrading Hillsboro's Current Water Supply:

Hillsboro is still committed to its Tualatin source and is involved in Bureau of Reclamation planning to improve earthquake resiliency of Scoggins Dam. Hillsboro and its Joint Water Commission (JWC) partners are also planning to expand the JWC water treatment plant (WTP), and increase its production capacity from 75 to 85 million gallons per day.

"As stewards of a precious resource, Hillsboro is committed to water efficiency in every area of our daily operations – from drinking water production through delivery to our customers."

Developing Regional Willamette Water Supply:

For over 100 years, Hillsboro has reliably served the community with high-quality water drawn from the Tualatin River. However, there are risks associated with relying on a single source of supply. Hillsboro and its partner, Tualatin Valley Water District, are developing the mid-Willamette River as an additional water source for Washington County. This new water supply will provide redundancy to the existing system, and ensure supply reliability for the next Hillsboro generation. Multiple sources also mean that drinking water needs can be more easily balanced with environmental protection.

Promoting External Water Efficiency Efforts:

Effective water conservation programs and newer low water use appliances mean Washington County homes and businesses are using 15% to 20% less water than a decade ago. Efforts will continue to improve water efficiency in future years.

Improving Internal Water Operation Reliability:

As stewards of a precious resource, Hillsboro is committed to water efficiency in every area of our daily operations – from drinking water production through delivery to our customers. Latest improvements aimed at improving system reliability includes: installation of meters that automatically flag customer leaks, the addition of a generator at the JWC WTP to provide power in emergencies, and continued replacement of aging pipes before breaks occur.



John Godsey

John Godsey,
City of Hillsboro,
Utilities Commission Chair

Jackson Bottom Demonstration Garden

City of Hillsboro's Water and Parks & Recreation Departments have teamed up to create a Water-Efficient Demonstration Garden at Jackson Bottom Wetlands Preserve. The garden is currently under construction and will be planted in the fall.

The aim of this public garden is to inspire and educate visitors about alternatives to traditional water-thirsty landscape planting, while creating a space that benefits and attracts wildlife. Plantings will include a variety of native species and adapted plants from similar environments, and will showcase drought resistant choices for both sun and shade. To minimize water demand and enhance plant health, plants will be grouped based on their water needs. Efficient irrigation systems, including drip irrigation, will be used to reduce - or even eliminate - evaporation, overwatering, and runoff.

Parks Maintenance crews have played a major role in designing and installing key site features, including a rain garden which directs roof runoff from the Wetlands Education Center through the garden and under two foot bridges constructed entirely with salvaged materials. Bird houses, feeding stations, and two water efficient wildlife features will also be incorporated into the space.



Birds love the garden.



Upon completion, the garden will be open for visitation year round and will be center stage for future community education classes focused on water-wise gardening, native plants, and gardening for wildlife.

The Demo Garden is designed to handle rain.



*Hillsboro
meets all
water quality
standards set
by the EPA.*



Reporting of Compliance Data Violations

Hillsboro's Cherry Grove water system completed all required sampling in 2014. However, the Cherry Grove (985) system received one reporting violation for Source Water Testing Results (SWTR) in October 2014. All sampling was completed and there were no water quality violations. The violation was due to an operator not providing the sample results to Oregon Public Health within the required reporting period. Hillsboro returned to compliance in December 2014, as soon as the error was identified. Hillsboro has increased accountability checks to its reporting system, which should prevent this type of reporting oversight in the future.

Information About Lead and Copper

While there is no MCL for lead or copper, the federal government identifies "action levels" that trigger certain actions by the water provider. The action level is based on the 90th percentile. This means that 90 percent of the samples must meet or be under the defined action level. The action level for copper is 1.3 ppm and the action level for lead is 15 ppb.

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. Hillsboro 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 thirty seconds to two 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.

Hillsboro's tap water is safe to drink.



Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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. EPA/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.

Tualatin River



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, 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 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 chemical contaminants*, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- *Radioactive contaminants*, which 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 Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Federal Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide 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 EPA's Safe Drinking Water Hotline 800-426-4791.

Microbials

Hillsboro operators collect samples from throughout the service area to test for coliform bacteria. Most coliforms are not harmful, but they can be an indicator that other disease-causing organisms may be present. If testing indicates that a routine sample appears to contain coliforms, a set of repeat samples is collected and analyzed to determine whether any disease-causing organisms are present.

Cryptosporidium and *Giardia* are microscopic organisms that, when ingested, may cause gastrointestinal symptoms. There are no EPA-mandated MCLs required for either *Giardia* or *Cryptosporidium*. However, because of the potential health effects of these organisms, the City of Hillsboro regularly tests for them in its water before and after treatment. Though very small amounts of these organisms were present in the pre-treatment samples, no *Cryptosporidium* or *Giardia* cysts were detected in the treated water.

Lab analyst checks water quality.



Unregulated Contaminant Monitoring Rule (UCMR)

Hillsboro Water has complied with the third round of the Environmental Protection Agency's (EPA) unregulated contaminant monitoring rule (UCMR 3). A full list of contaminants tested and their results are available upon request. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. The unregulated contaminants that were detected in Hillsboro sampling are listed below, along with their level of detection. For more information, please call Jessica Dorsey, Water Resources Technician, at 503-615-6579.

UNREGULATED CONTAMINANTS - MONITORING UCMR3 RESULTS

Substance (Unit of Measure)	Year Sampled	Action Level	MCLG	Amount Detected	Range Low-High	Typical Source
Hexavalent Chromium (ppb)	2014	N/A	N/A	0.204	0.113 - 0.204	Chemical found in nature
Vanadium (ppb)	2014	N/A	N/A	0.6	0.25 - 0.6	Metal found in nature
Strontium (ppb)	2014	N/A	N/A	39	32 - 39	Metal found in nature
Chromium (ppb)	2014	N/A	N/A	0.27	0.21 - 0.27	Naturally occurring element

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 shows only contaminants that were detected and are considered a risk to health if

2014 Sampling Results

over the Maximum Contaminant Level (MCL). Although all detections listed here are well under the Maximum Contaminant Level (MCL), it is important to us that you know exactly what was detected and how much of the substance was present in the water.

REGULATED SUBSTANCES

Substance (Unit of Measure)	Year Sampled	MCL (MRDL)	MCLG (MRDLG)	JWC Plant System		Slow Sand Filter Plant		Violation?	Typical Source
				Amount Detected	Range Low-High	Amount Detected	Range Low-High		
Chlorine (ppm)	2014	(4)	(4)	1.23	0.91 - 1.23	1.98	0.97 - 1.98	No	Additive controls microbes
Nitrate (as Nitrogen) (ppm)	2014	10	10	0.05	0.19 - 0.50	0.12	0.07 - 0.12	No	Fertilizer run off/erosion
Barium (ppm)	2014	2	2	0.004	0.004	0.001	ND - 0.001	No	Natural deposit erosion
Total Coliform Bacteria (% positive samples)	2014	5% monthly samples positive	0	1.2%	ND - 1.2%	ND	ND	No	Naturally present in environment
Turbidity (NTU)	2014	TT	NA	0.04	.02 - .04	0.855	0.051 - 0.855	No	Soil Run-off
Turbidity (Lowest monthly %)*	2014	TT	NA	100%	100%	100%	100%	No	Soil Run-off

DISINFECTION BY-PRODUCTS (DBP)

Haloacetic Acids [HAA] (ppb)	2014	60	NA	37.8	16.3 - 37.8	22.3	14.7 - 22.3	No	By-product of chlorination
TTHMs [Total Trihalomethanes] (ppb)	2014	80	NA	51.3	21.7 - 51.3	17.8	13.2 - 17.8	No	By-product of chlorination

HAA's and TTHMs are measured quarterly at four Hillsboro sites for JWC & one site for the SSFP. Results are reported as a running annual average.

LEAD AND COPPER TESTING

Substance (Unit of Measure)	Year Sampled	Action Level	MCLG	Amount Detected 90th %tile	Sites Above AL	Amount Detected 90th %tile	Sites Above Action Level	Violation?	Typical Source
Copper (ppm)	2012	1.3	1.3	0.095	0	0.143	0	No	Corrosion to household plumbing and natural deposit erosion
Lead (ppb)	2012	15	0	3	0	2	0	No	

MINERAL CONTENT

JWC and SSFP Water Systems

Substance	Year	Range (ppm)
Aluminum	2014	ND - 0.01
Calcium	2014	6.8 - 8.2
Chloride	2014	4.0 - 5.28
Magnesium	2014	2.3 - 2.8
Sodium	2014	8.3 - 8.7
Sulphate	2014	10 - 11

Tap water samples were collected from sample sites throughout the community. Although all detections listed here are well under the Maximum Contaminant Level (MCL), it is important to us that you know exactly what was detected.

AL=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. 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 contaminants.

ND=Not Detected

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.

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.

Turbidity: Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the plant filtration system. *Lowest monthly % of samples meeting limit.

Definitive

Our water meets or exceeds all federal and state regulations.



Source Water Assessment

The Department of Environmental Quality (DEQ) and the Oregon Health Authority (OHA) completed a source water assessment that identified the surface areas supplying water to the Tualatin River intakes. They also inventoried the potential contaminant sources that may affect the water supply. A total of 306 potential contaminant sources were identified and 295 of those sources are located in sensitive areas. Sensitive areas include places with high soil permeability, high soil erosion potential, high run-off 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, 150 East Main Street, Hillsboro, or call 503-615-6702 for more information.

Commitment to Quality

Since 1940, City of Hillsboro's goal has been to provide safe and high quality drinking water for all its water customers. To maintain our commitment to you, certified operators routinely collect and test water samples every step of the way - from source waters to your meter. Our treatment plants are maintained, evaluated and upgraded regularly to stay abreast of advancements in technology, health science and government regulations. Because of prudent long-term planning, and operational efficiency, we are able to provide you with high-quality drinking water at some of the lowest rates in the region. For more information about this report, or for any questions relating to your drinking water, please call Tacy Steele, Public Information and Relations Officer, at 503-615-6732.

Swimming at SHARC



Hillsboro's Water Source and System

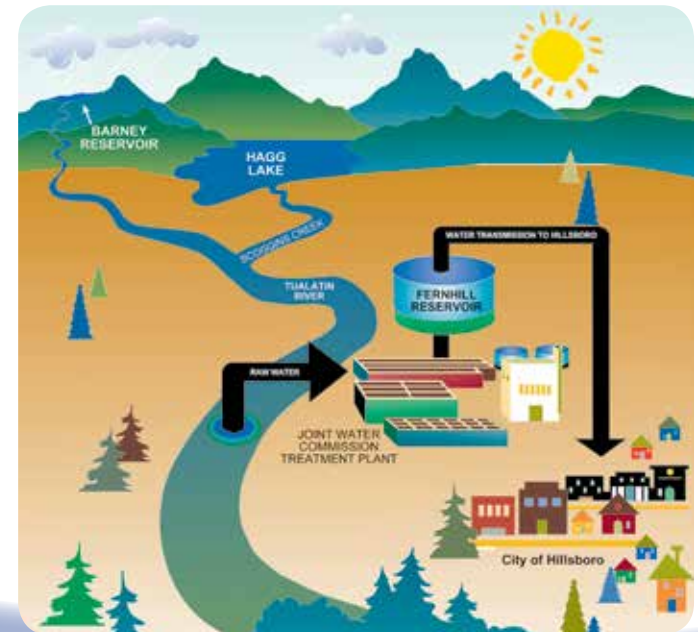
All of the water that runs through your tap is treated surface water, which means it comes out of a river or reservoir. Hillsboro's winter water source is the upper Tualatin River. In summer, the river level drops too low for municipal use, so Hillsboro relies upon water stored in Barney Reservoir and 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 per day, 365 days per year.

The SSF Plant can treat up to three million gallons per day (MGD), providing water to Cherry Grove, the City of Gaston, the L.A. Water Co-op, Scoggins Valley and Dilley. After treatment, SSF water flows through an 18-inch line to Dilley; along the way water is fed to Hillsboro's country and wholesale customers.

The JWC plant is the largest conventional water treatment plant in Oregon and is capable of treating up to 75 MGD. It provides water to the JWC partner agencies of Hillsboro, Forest Grove, Beaverton and Tualatin Valley Water District, and also wholesales water to North Plains. The City of Hillsboro typically uses 17.5 MGD of combined JWC and SSF plant capacities to meet customer needs, but summertime usage can push that demand up to almost 33 MGD, primarily due to outdoor watering habits.

The water is delivered to Hillsboro and beyond via two large transmission lines. There are approximately 250 miles of distribution lines in the city of Hillsboro that are fed by the transmission lines. These lines provide water to over 24,000 business and residential customers who live west of Cornelius Pass Road. The Tualatin Valley Water District serves Hillsboro residents living east of Cornelius Pass Road.

Hillsboro's water system is maintained, evaluated and upgraded regularly to stay abreast of advancements in technology, health science, and government regulations.



Willamette Water Supply Program Preferred Route

By the time Hillsboro Water Department (Hillsboro) and Tualatin Valley Water District (TVWD) customers begin getting mid-Willamette water through their taps, over 50 years will have passed since the addition of the last water source, Hagg Lake. It will also be the first time Hillsboro has chosen a supply outside the Tualatin River Watershed.

The Utilities Commission designated the mid-Willamette as Hillsboro's next source for drinking water after a two-year study of source options. Since then, Hillsboro and TVWD have been working closely together, as they develop and implement a billion-dollar plan for water infrastructure that will supply water to the Washington County region beginning in 2026. The new water system will include an expanded Willamette River Water Treatment Plant in Wilsonville, a 30+ mile pipeline, and additional water storage tanks.

Route Map



A preferred pipeline route was announced in March. The favored route follows Cornelius Pass Road and 206th Avenue in Hillsboro, and is the result of months of work reviewing multiple routes against selection criteria and getting input from staff, policymakers and community members. Over the coming year, the pipeline design will be further refined, and could be changed, based on input from local jurisdictions.

Hillsboro customers have been actively involved in the process, and many conversations have taken place regarding the WWSP. Here are some program basics:

Why is Hillsboro seeking a new water source? Hillsboro is looking ahead to secure an additional safe and reliable source of drinking water for the City's future. The Tualatin watershed will continue to be Hillsboro's primary water source, but in planning for Hillsboro's next generation, the City anticipates the need for additional water beyond what current sources and a robust conservation program can provide.

Why was the mid-Willamette chosen as the most viable option? The mid-Willamette River at Wilsonville offers significant benefits: excellent finished water quality, redundancy, ownership and control of the supply, year-round reliability, and better value.

What's next for WWSP planning? Although most of the construction won't occur until 2020-2025, it is necessary to start work now to identify and plan for possible opportunities for coordinating construction with roadway and utility projects. Planning ahead, in conjunction with other construction projects, will result in significant cost savings. Other ongoing activities include developing design standards and a permitting strategy.

Where can I get more information? Please contact Tacy Steele, tacy.steele@hillsboro-oregon.gov, or 503-615-6732.

Dewey on the Town

Did you know Hillsboro Water Department has a mascot? Dewey the Water Drop is often seen around town – at the Markets, at the Library, and he even “drops” in sometimes at Hops' Games to give Barley a hand. Look for Dewey and other helpful Water staff at events all summer: providing information, handing out water-saving gadgets, and educating children through interactive activities. Also, the Water Department continues to provide free access to drinking water at many community events during summer months with Hillsboro's Hometown Tap. Where will you find us this summer?

- Pix on the Plaza
- Saturday Farmers' Markets
- Tuesday Markets
- Celebrate Hillsboro
- Hillsboro Hops' Night (June 25th)
- Washington County Fair
- Jackson Bottom Watershed Day (August 29th)

Say 'hello' to DEWEY, our mascot!



Reliability Efforts in Water Operations

Hillsboro Water Operators are excited about the recent purchase of a valve maintenance trailer. The trailer will make exercising valves quicker and easier for the crew, which is important since there are over 10,000 valves on the pipes running throughout the city. The valves are exercised to make sure they work properly so crews can use them to quickly shut down water flow when leaks occur.

Flexible pipe delivers in emergencies.



Operations also used a Federal grant, coordinated through the Regional Water Providers Consortium, to purchase over 2000 feet of flexible, plastic pipe for serving water to small areas during emergency shut-offs. The blue pipe is kept on large rolls and can be easily transported for emergency response. The piping was recently used to provide temporary water service to Washington County Jail, so that the regular water line could be shut down for installation of several new valves.

Yard and Garden Resources

Water-wise Irrigation Upgrade? Hillsboro is offering rebates up to \$200 when you purchase and install a WaterSense-labeled Weather-Based Controller. Weather-Based Controllers apply highly-accurate irrigation by automatically adjusting the schedule and amount of water depending on local weather conditions. This reduces unnecessary watering by tailoring applications to meet your landscape's specific plant and climate needs. The automatic adjustment also means you don't have to remember to change your watering schedule for hotter and cooler days or weeks, because the controller takes care of that chore for you. Please visit our website for details: www.hillsborowater.org.



Sustainable Garden Upgrade? Whether you are starting from scratch, or re-doing an area of your yard, a great place for information and ideas is on the Hillsboro Water Garden site. Visit www.hillsborowater.org and look for the Quick Link "Sustainable Gardening Tips and Pics" You can take virtual garden tours for inspiration, or research specific plants, trees and shrubs that will provide beauty to your garden and also use less water. Or, if you have sustainable landscape already and would like to share with your Hillsboro neighbors, contact Amy Geerling, Water Conservation Specialist, at 503-615-6737, and she would be happy to take pictures and feature your garden on the site.

Source Water Protection

Wapato Lake Canal

Lee Falls, Upper Tualatin River



Our Community Watershed

The Tualatin River Watershed is a basin where every drop of water that falls onto it flows downhill into creeks, then streams, and eventually into the Tualatin River. The

land area that funnels water into the river and supplies water to the JWC Water Treatment Plant is 212 square miles in size. What happens on that land impacts the quality of the water that flows into the Tualatin River, into the water treatment plant, into the distribution system, and out your tap. Hillsboro is working with community partners to educate and implement programs that will reduce human impacts on the watershed and keep toxins from entering our natural waterways.

Frequently Asked Questions

- Is the water fluoridated? Hillsboro Water (HW) does not fluoridate its water supply. Check with your dentist to see if supplemental fluoride is recommended for your family.
- Is Hillsboro's water hard or soft? Hillsboro does not use any well water in its supply, so the water is very soft, about 2-3 grains per gallon.
- What is the pH of our drinking water? Hillsboro's water is buffered to reduce pipe corrosion and protect against lead and copper exposure. The normal pH range for your drinking water is 7.7 - 7.9.

Can I pay my bill online?

Yes! Utility Billing accepts payments in a variety of ways including online and automatic withdrawal options. For more information, please visit hillsboro-oregon.gov/utilitybilling.

Public Hearing

The City of Hillsboro Utilities Commission (UC) will be holding a public hearing on July 14, 2015, at 7:00 p.m., in the Shirley Huffman Auditorium of the Hillsboro Civic Center, 150 E. Main, Hillsboro. The UC will be considering a proposed water rate increase that, if approved, will increase an average residential customer bill by \$1.50 a month. An approved rate change would be implemented on October 1, 2015.

Community Participation

The City of Hillsboro Utilities Commission normally meets at 1:30 p.m., on the 2nd Tuesday of every month in the Civic Center at 150 E. Main Street, Room 207. Commission meetings are open to the public. Agendas are listed at www.hillsboro-oregon.gov, or call 503-615-6702.

And the winner is...

The 2016 Calendar Contest



Berkeley Skipper, 5th Grade,
Ladd Acres Elementary School

Hillsboro hosted its 12th Annual Water Calendar Contest at Hillsboro Elementary Schools. The theme for this year's contest was "Love Every Drop!" Fifteen Hillsboro schools and 33 classrooms participated, with 494 entries. Winning students were chosen in grades 1-6, who creatively illustrated different ways to "Love Every Drop!" Calendars are available during the month of December until supplies run out.