WATERWORKS

SUMMER 2010

Provided for the neighbors and customers of HC FWSD #52

The water we conserve today, can serve us tomorrow!

Delivery of Surface Water to Begin

Harris County Fresh Water Supply District #52 will initiate the delivery of surface water to our customers within the next few weeks. While the process of reducing reliance on our groundwater supply by converting to surface water has been underway for the past decade, all the components necessary to complete this transition have just been put in place.

In the interest of avoiding misinformation on critical water topics now and in the future, we've created a district newsletter, a new website, and will include inserts in your water bills to provide timely information.

Adding Surface Water...

Earlier this year, we advised our customers that in order for the introduction of surface water to take place, it was first necessary to change the method of disinfecting our water from chlorine to chloramines. The construction and modifications to our facilities took place as scheduled, and the system has been put into operation. As with the other 59 area MUDs undergoing conversion under the initial 2010 mandate timeline, there have been very few complaints in our service area about any perceptible changes in the drinking water.

There have been media stories, however, that have caused some concern about water quality, and we want to provide some key facts about this critical issue. First and foremost, the drinking water provided to our customers meets or exceeds all state and federal water quality standards and is absolutely safe to drink. In compliance with U.S. Environmental Protection Agency (EPA) regulations, the District has recently issued its annual Consumer Confidence Report to each customer that contains specific information about our water.

As more districts have received surface water, there have been a few reports of changes in taste and odor. When these experiences have occurred, they almost immediately disappeared, without further complaints. We recognize that these sensory perceptions might differ from person to person, but they are of short duration and do not alter the quality of the water.

We hope that you will find this newsletter useful and informative. We also invite you to visit the new website -- ***www.championswater.com*** -- and to sign up to receive periodic e-news and some common sense water conservation information.

HCFWSD #52 Board of Directors

The Great Bottled Water Debate…

No matter which side of the bottled water debate you're on, there are essentially two topics under the microscope…

One, is it "better" than tap water? And the second topic has to do with the bottle itself. Let's consider these issues and points of view.

A freelance writer/environmentalist from Canada pointed out recently that, "*Our lives are filled with unnecessary, wasteful and idiotic things to buy. But few are as stupid as bottled water….few products are as downright silly. Folks who work in advertising always cite it as the best example that proves you can persuade people to buy anything…as long as it has a spiffy logo and a slick name. You can even convince people to pay 1000 times more for the exact same product that comes out of their tap for free.*"

Wow…that's pretty hard to argue with. In fairness to the pro-bottled water drinkers, however, many say they just don't like the taste of their tap water…or that they simply have to drink a lot of water every day to stay on a special diet and the bottled water is so much more convenient to take along, etc.

Something is sure working in favor of the product… consumers are spending upwards of $100 billion a year on bottled water. Americans drink more than 30 billion gallons of bottled water annually… and that's more than coffee, milk or beer! What these water consumers may not realize is that 24 percent of the bottled water out there for sale on the grocery store shelves is TAP WATER repackaged by Coke and Pepsi…no kidding.

If you're considering cost factors alone, according to *Treehugger.com,* the average cost of eight glasses of water from your faucet every day would run you around $0.49 *per year*. The same amount of bottled water would cost around $1,400!

According to Ben Grumbles, the former head of the U.S. EPA's water programs, "*It's an urban myth that bottled water is safer than tap water.*" He continues to point out that the EPA requires municipalities to test water daily and validates testing to make sure that the nation's community water systems meet stringent standards. There are Food and Drug Administration standards for bottled water, too, but even bottled water officials won't claim that bottled water is healthier, or better for us.

Moving on to issue number two…the bottle itself. According to detractors, water bottles clog landfills and consume energy in their manufacture. Again, that's a hard statistic to argue with. The Container Recycling Institute, for example, reports that only 23 percent of plastic bottles were recycled in 2006, and the year before that, over 144 billion containers were wasted in the U.S. Only 11 states have container deposit legislation, and even those don't always cover water bottles. The Institute says that 85 percent of the water bottles end up in landfills or on the side of the road. Only 15 percent make it to be recycled. And – here's a stunning fact – the PET plastic bottles take 400 to 1000 years to degrade. That certainly begs the question as to where all that plastic will end up.

Here's another fact to consider…more than 17 million barrels of oil are used each year to ***create*** bottles for water. That is enough petroleum to fuel one million U.S. vehicles for an entire year, according to the Washington, D.C. based Earth Policy Institute. That's a pretty large *carbon footprint*, if you're into that sort of thing.

So, consider purchasing a REFILLABLE bottle that you like, and fill it up with our excellent, top quality TAP drinking water! You'll find that this is just as portable as bottled water, but it sure costs a whole lot less! If you do this, give yourself a congratulatory pat on the back, too…for not contributing to the massive landfill problem. We thank you…and our planet thanks you.

The Rising Cost of WATER...

Approximately 10 years ago, the Harris-Galveston Subsidence District (HGSD) published its Regulatory Plan designed to arrest the occurrence of subsidence throughout north Harris County by requiring that the pumpage of groundwater be reduced. Such an action would also allow the aquifers to recharge.

In 1999, to promote and coordinate compliance with the Subsidence District's mandate, the 76th Texas Legislature created the **North Harris County Regional Water Authority** (NHCRWA)to act on behalf of approximately 160 municipal utility districts. The Authority's primary task in adopting a ***regional*** approach to water supply issues, was to negotiate for a long-term supply of top quality, potable surface water adequate to meet the phased conversion schedule. The HGSD mandate called for reducing reliance on groundwater by 30% in 2010; by 70% in 2020; and by 80% in 2030.

The alternative to this regional approach was for each of the utility districts to establish their own groundwater reduction plans, and to independently secure their own future surface water supplies. Failure to do so would trigger imposition of the Subsidence District's *disincentive fee* of $3.50 per thousand gallons of groundwater pumped. (In the past year, the disincentive fee has increased to $5.00 per thousand gallons.)

From the outset, the Authority's board of directors has been committed to the concept of equity -- an assurance that everyone within the Authority's jurisdiction will pay an equal and fair share of the cost necessary to construct an entirely new water delivery infrastructure to bring surface water from the City of Houston's Lake Houston facility to our neighborhoods. In addition, the Board has promised that the Authority's fees would be kept as low as possible...for as long as possible, and this commitment has also been honored.

Initially, a fee of $0.25 per 1000 gallons of water pumped from ground-water wells was imposed in 2000 -- with fees escalating annually over the decade. To date, the Authority has installed more than 75 miles of new water lines throughout the community to deliver surface water to our neighborhoods for the first time this year.

Interim option...

An innovative groundwater transfer program allowed us to help utility districts in need of interim water supplies to obtain them from districts with water to spare; *without the necessity of drilling expensive new water wells.* The lines constructed for the surface water conversion were extended ahead of schedule -- which not only helped districts needing water immediately, but offered the added benefit of being constructed under economic conditions favorable for the construction. This program was instrumental in allowing the Authority to contain costs as much as possible.

The Authority also partnered with the City of Houston several years ago to construct a major transmission line to bring surface water from the City's Northeast Water Purification Plant to the Authority's 2010 pumping and storage facility. Completing this line ahead of schedule resulted in millions of dollars in savings.

Looking forward...

New residential and commercial development in our community requires an adequate water supply. Over the past several years, additional factors -- rising fuel and electric power costs, financial market issues, and increasing costs of materials -- have had a dramatic impact on the Authority's construction costs, as well.

Last fall, the Authority Board of Directors adopted the 2010 **groundwater** and **surface water fees** which are identified on your water bill as the NHCRWA fee. These funds will continue to cover the Authority's debt service requirements, bond covenants, and the maintenance and operation of the surface water delivery system. (*For additional information about NHCRWA visit their website www.nhcrwa.com.*) ■

Source: North Harris County Regional Water Authority

Isn't it time to STOP WASTING WATER?

Lets face it...we've all taken our finite water resources for granted, right? We turn on the tap and expect the water to be there...no question about it. But what if we only had a certain amount of water we could use each day? How would we choose to 'spend' it?

In a lot of places around the world, people have to do just that. Water is rapidly becoming a global commodity that some say is more precious than oil. If that's true, how come few people even know what a glass of water from their home faucet costs?

We know what a can of soft drink costs...we know what a *bottle* of water costs...but not what we pay for this precious resource when it is delivered to our homes! Sadly, it is just human nature that when we don't know the *value* of something, we don't pay much attention to how we use it.

It is important to understand two things: 1. the days of cheap and plentiful water are history, and 2. the cost of water is going to increase dramatically in the years ahead. These two facts dictate that we use water more efficiently and avoid wasting it whenever we can.

Here are some common sense things we can do at home to put ourselves on a **"WATER BUDGET"** that will also save money in the process!

1. Go low-flow. Did you know that with a few twists of the wrist, you can save 25% to 60% of the water -- and 50% of the energy -- necessary to shower and shampoo for both you and your family? Install a **low-flow shower head**, which restricts the water output to no more than 2.5 gallons per minute -- which is the federally mandated limit for new fixtures. The low-flow shower heads help you start saving money right away, and most can be installed with existing fittings.

If you live in a home built before 1994 and if you haven't renovated your bathroom, you're likely to realize the most out of the low-flow strategy. Older shower heads send as many as 5.5 gallons per minute down the drain. The new fixtures go as low as 1.5 gpm, saving 7,300 gallons and $30 to $100 a year over their 2.5 gpm counterparts.

Unlike older versions, which sometimes offer only a sprinkle, the newer low-flow models maintain decent pressure by forcing air into the mix, or even channel water into massage-like streams. Another product shoots bigger droplets at a higher speed, approaching the feel of an old-fashioned soaker at a stingy 1.6 gallons per minute. The fancier fixture may be a little more expensive, but if it delivers the shower experience you prefer, you'll still save money and water.

If it has never occurred to you how fast the water runs through your shower head, put a bucket under the nozzle and time how many seconds the water takes to get to the 1 gallon mark. If it's less than 20 seconds, run -- don't walk -- to the nearest hardware store to find a low-flow replacement for your shower head.

2. Retrofit your faucets. The next time you visit the plumbing aisles at your local home improvement store, check out the faucet aerators — little gadgets that screw into your faucet threading and cut the water flow from 3 to 4 gallons per minute (the rate on older fixtures) to as little as a half-gallon.

As with shower heads, you can figure out how fast your faucet flows by putting a quart container under the stream. If the container fills in less than five seconds, your faucet could use this fix. As the name suggests, aerators blend

water and air, reducing the flow without sacrificing pressure. At 50 cents to $3 apiece, the devices are some of the cheapest green gadgets available.

Aerators come in a range of flow rates, up to 2.2 gpm. A faucet that flows at 1 gpm gets your toothbrush and washcloth wet enough to do the job. But unless you want to grow old waiting for your pasta pot to fill, you'll need to give your kitchen faucet a bit more oomph. Use an aerator with a flow rate of at least 2 gpm.

3. Use a little WaterSense. It won't be long before you won't have to worry about purchasing products that promise a deluge and deliver a dribble or that simply don't live up to their water-saving claims. The U.S. Environmental Protection Agency recently launched a certification program that checks and tests devices for water efficiency and performance, and awards the **WaterSense** label to those that do the job right.

EPA WaterSense

For more information about this program, visit the website *www.epa.gov/watersense*.

4. Test the toilet for leaks. Put a drop of food coloring in the toilet tank. If the color shows up in the bowl, your tank is leaking and you're wasting up to 200 gallons of water a day. Ask the plumbing experts at the local do-it-yourself store how to fix the leak. Be sure to take along the name and model (if available) of your toilet.

5. Shower. Switch from a bath, which requires 30 to 70 gallons, to a shower, which uses 25 gallons in ten minutes under a 2.5 gpm shower head. Then shorten your shower.

6. Plug the leaks. A leaky faucet wastes as much as 2,700 gallons in a year — if it doesn't drive you crazy first. So stop wasting water...fix it!

7. Raise the mower blades. Adjust your lawn mower blades to the 3-inch setting. Shaggy grass holds moisture longer, requiring less watering.

8. Water early. Water your outdoor plants in the early morning, before the sun can burn off moisture. Make sure that your irrigation timer (if you have one) is set to complete all the watering cycles BEFORE 5 am...when the morning demand for household water begins.

9. Don't over-water. Before starting your sprinkler, step on the grass. If the blades spring back, hold off on watering for a day or two. During the summer, irrigation accounts for up to 80 percent of the water we use at home, and experts say that about 50 percent of that precious water is wasted. If you have an irrigation system with an automatic timer, make sure you install a rain sensor, especially if you plan to be away from home for any extended period of time. Even better, if you're leaving on vacation, ask a neighbor to keep an eye on your sprinklers to make sure they don't run unnecessarily. Take control of your irrigation controller and put your grass on a diet!

10. Get your car washed. Commercial car washes save up to 100 gallons of water per wash over the do-it-yourself kind, and they often reuse the rinse water.

Just imagine...

What if we could teach them the true value of water...and how to use it wisely... while they're still at this tender, young age?

Today's youngsters will have families of their own in 2050 when the State's Water Plan warns that we will no longer be able to meet the demand for water....for our cities, our farms, our manufacturing plants, or our homes. For this generation, television...the internet..space travel...adequate supplies of low cost water...and land-line telephones are things they will read about in the history books. Most of the jobs and career paths they will take haven't even been dreamed up yet. Instant communications and technology will be their daily tools....but in ways we cannot even imagine.

So, what can we do to help protect that shining future as they embark on this amazing journey? Quite simply, we must not only be good stewards of our endangered natural resources, but we have to pass this critical legacy on to them. The cornerstone of this responsibility is to appreciate the true value of finite resources...especially water.

Teach by example...make a commitment to preserve, protect and defend our water supplies from dangers foreign and domestic...and, by avoiding waste...to use water more efficiently..

The water we conserve today...can serve them tomorrow!

WHAT'S A WATER "FOOTPRINT"...
and how big is yours?

If you think of your 'footprint' as how much water you use, are you a tip-toer...or a BIG FOOT? Sounds strange, but water experts have recently begun calculating water usage for individuals, households, communities and even whole countries by considering how much water they directly or indirectly consume in any given time frame. This includes "virtual water*"-- the amount of water needed to produce everyday things we rely on like food, energy, clothing and shelter.

Start with your morning cup of coffee -- that takes roughly 37 gallons of water to grow, produce, grind, package and ship the beans...and add another few cups to brew it. Here's another dramatic statistic: the water footprint of a pound of plastic is 24 gallons. That means that for the average bottle of water, juice or soda, the bottle may use three to five times as much water to create as the beverage it contains! Get the picture?

Most folks have no idea how much fresh water they consume in a day. Experts suggest that in addition to what we drink and bathe in, food and energy production account for nearly 90 percent of the world's fresh water consumption. While the geo-political-economic implications of water usage by nations might be complex, the water footprint concept can remind us where our water comes from and its true value as *the* critical component in virtually everything in our lives and lifestyle.

In north Harris County, we are in the process of converting from the groundwater we have depended upon for the past 30 years to surface water, coming to us from Lake Houston through an entirely new infrastructure constructed by the North Harris County Regional Water Authority. This shift away from our groundwater dependence is being accomplished in compliance with a mandate of the Harris-Galveston Subsidence District with phased reductions over the next 30 years.

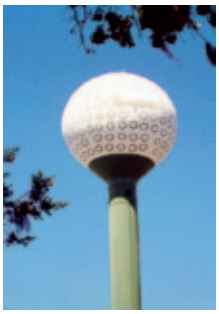
With the cost of water continuing to increase into the future, putting ourselves on a 'water budget' -- using no more than necessary in our daily lives -- makes a lot of sense. We are accustomed to operating within a budget for our household expenses and work assignments, so the concept is a familiar one. Consider all the ways you can use water more efficiently -- taking shorter showers, running the dishwasher or washing machine only with full loads, and MOST IMPORTANTLY, water your lawn only when it needs it.

Quite simply...USE LESS SAVE MORE.

Do you know what the biggest water waster is at your house?

Chances are, if you have an irrigation system, that is at the head of the list. Experts say that during spring and summer months, 80 percent of the water we use is 'spent' on watering our lawns and gardens...and up to 50 percent of that water is WASTED. Adjusting the settings on your system controller can save significant water and $$$! Even using less water, you'll still be able to maintain a healthy, great looking lawn!

* *Introduced in 1993 by Professor John Allen, to measure how water is embedded in the production and trade of food and consumer products.*



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Protect Water Quality with a Backflow Prevention Device

If you have a swimming pool and/or an irrigation system for your yard, you should have a backflow prevention device -- like the one to the right -- nearby. Most people probably have no idea what the pipes and valves are for, and unless they were told during the installation of the pool or sprinklers, they wouldn't know that this equipment plays a critical role in protecting your home's potable water system from contamination.

Backflow may occur in the event of either *backsiphonage* or *backpressure*. Backsiphonage can happen when the pressure in the distribution system drops, drawing water from the consumer's plumbing back into it. Pressure drops might occur in the event of a line break, or high water demand such as fighting a fire nearby. Backpressure can cause backflow when a potable water system is connected to another system that operates at a higher pressure...such as an irrigation system.

Water distribution systems are designed to have the water flow from the water treatment plant to the consumer, but whenever a cross-connection in a plumbing system takes place (when the potable water supply is connected to a non-potable source) contamination can occur if not protected. If a plumbing system is modified, there is potential to create cross-connections.

So, what's the danger? First of all, your yard and landscaped areas are full of potentially nasty things that you don't want in your drinking water....like pesticides, fertilizers and animal waste. If your pool or irrigation systems are not properly installed and protected with these devices, your system is vulnerable to backflow. Most of the time, the pressure in the system will keep the water from flowing backwards, but as mentioned earlier, a sudden pressure drop caused by a firetruck, or if the lines are shut down to repair a broken pipe, can trigger a backflow situation in surrounding neighborhoods.

Still not convinced? Here's an experiment you can do yourself. Turn off the water valve leading to your house. Next, turn on a faucet in the kitchen or downstairs bathroom. Then go to a higher level in the house and turn on another faucet. You will hear air being sucked into the higher faucet. You just created backflow in your plumbing system. Not too difficult to do, right?

Backflow prevention devices protect all of us from the possibility of contaminents entering our drinking water system. If you have not had yours inspected for proper operation, you may wish to call a liscened irrigator to inspect it to confirm that it is working properly. Safety in our drinking water system is an important responsibility that we all share. ■