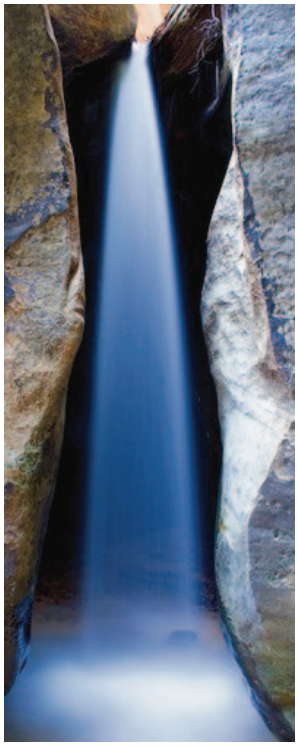
JANUARY 2010

WATERWORKS

Provided as a public service for our customers and neighbors

WHAT THE DISTRICT DOES TO PREVENT STORMWATER POLLUTION



Protecting our drinking water supplies from the intrusion of storm water pollution is one of the most important responsibilities the District has, and we take this stewardship very seriously. We have reported to our customers on many occasions about this critical topic, and as we enter what could very well be the DECADE OF WATER, we want to provide additional information about how we fulfill this responsibility.

The District must file for an MS4* Permit, issued by the Texas Commission on Environmental Quality, that covers storm water runoff from properties in the District. This is intended to improve water quality by reducing the quantity of pollutants that storm water picks up and carries into storm sewer systems during rain events. The Permit requires us to develop, implement and enforce a program to reduce the discharge of pollutants to the maximum extent possible; protect water quality; and satisfy the appropriate water quality requirements of the Clean Water Act.

Our Storm Water Management Plan requires us to have best management practices (BMPs) for each of six minimum control measures; measurable goals for each minimum control measure; estimated time to implement each measure; and persons responsible for implementing the program.

** MS4 is a conveyance or system of conveyances, owned by a Public Entity that discharges to the waters of the U.S.*

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Storm Water Management Program

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The **Six Minimum Control Measures** are: Public education and outreach on storm water impacts; public participation/involvement; illicit discharge detection and elimination; construction site storm water runoff control; post-construction storm water management in new development/redevelopment; and, pollution prevention/good housekeeping.

In the area of **public education and involvement**, the District includes a business education program. We develop and distribute storm water quality educational materials; we've added storm water educational information to our website; and we have student education materials on the topic. In addition, we offer public input sessions and storm water management presentations.

The District has developed an **Illicit Discharge Policy** and has a map of the storm sewer system. An Illicit Discharge/Dumping Hotline has been implemented. (Fines of up to $5,000/day for EACH violation may be applied, plus any other penalties provided by the laws of the State and to any other legal rights and remedies of the District.) In addition, the district must develop a screening, inspection and detection program and maintain a database of businesses.

In the area of **Pollution Prevention/Good Housekeeping**, the District holds annual employee training; existing procedures are evaluated, including structural control maintenance, waste disposal, and spill prevention and response.

Construction sites offer opportunities for storm water runoff to occur and the District must develop **construction site runoff control** policies; conduct a site plan review; implement a reporting hotline; offer contractor education; and conduct routine inspections and implement corrective actions. Following construction, a storm water management policy must be in place; the District will review procedures; and inspect completed projects.

Area residents can learn more about helping to contain storm water runoff pollution by visiting several websites:

www.waterdistrict25.com
www.tceq.state.tx.us
http://cfpub1.epa.gov/npdes/stormwater/munic/cfm
http://cleanwaterways.org/downloads/professional/construction_handbook_full.pdf

CALL TOLL FREE 1-866-414-9950

to report illegal Storm Sewer Dumping

SAVE OUR WATERWAYS!

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. The International Bottled Water Association (IBWA) says it *"all boils down to what consumers prefer."*

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. Ultimately, where is all that plastic going to 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, perhaps this article isn't entirely transparent about which side of the bottled water debate we're on. Our suggestion is to purchase 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.

WHAT DO YOU KNOW ABOUT WATER-SAVING "BUGS"

It's likely that you've read or heard that *"when you add **compost** to the soil in your yard – regardless of whether your soil's sand or clay — you'll SAVE WATER."* Maybe you've even heard that you'll save between 30 to 50% of the water you normally put on your yard… which can make up as much as 50% of your summer water bill.

How do you know if these claims are accurate? Have you ever tried composting for yourself? What will it cost you to try compost on your landscaped areas? What *magic ingredient* does compost have that saves water in your landscape?

There are a gazillion compost products on the market these days. Big chain stores carry packaged compost, "organic" products are readily available, and you can even make your own in your backyard. (Composting leaves from one mature tree is equal to $50.00 of purchased compost/mulch.) Are there significant differences among these products as far as water savings are concerned? Yes, there are… but some "generic" compost may be better than no compost at all. Do your homework on what's available locally. There are some reputable compost suppliers in the area who sell products containing good, fresh 'ingredients' that can work wonders on your planted areas. You might think twice, on the other hand, about purchasing a bag of dry, sterilized, plastic-packaged-with-no-air products that may sit on a store's shelf for an indeterminate amount of time.

Compost is made up of organisms, and different ratios of carbon to nitrogen 'products'. The products are usually materials that are being discarded by nature…or by you. When nature discards them, they fall to the earth, like leaves and twigs, and naturally decompose. Unless you have a compost system, when you discard them (e.g., fruit and vegetable peelings, egg shells, even coffee grounds), they all too often end up in plastic bags in the landfill….but that's another story!

Organisms are the heroes -- the real stars -- <u>the living ingredients that you must have in your soil to hold water</u>. So, *bacteria, fungus, protozoa, nematodes* (the good ones) to name just a few, are what you need in your soil to **save water**. These little guys live in the spaces between soil particles and are – themselves — made up mostly of water. On the average, for example, it's estimated that bacteria are 97% water, fungus are 54% water, and protozoa are 39% water. When these micro-organisms are healthy and happy (e.g., *have enough water and haven't been killed by sterilization or chemicals*) they digest carbon products and use nitrogen to create enzymes that get busy breaking down matter. You may never have actively thought about it, but that is exactly what compost is all about – *de-composed* matter.

Protecting these microscopic critters and adding them to your soil as part of good compost is

what substantiates the 30-50% WATER SAVINGS mentioned earlier. With time and some careful attention to choosing — or creating — the right compost for your application, you will indeed be able to ***save water***! As your soil becomes more rich and fertile, plant roots will grow and become more healthy and happy. Using compost also reduces the amount of fertilizer and pesticides needed to produce healthy plants, and it is cheaper than artificial soils.

Still skeptical about the "saving-water" claims? Here's an experiment for you to try. Apply compost to a clearly delineated section of your landscaped area. Follow product directions as to the amount to apply and whether or not to mix it into the soil. (Some experts suggest that a depth of 4 inches should be sufficient.) Take some photos – of the composted area and another similar section that you do NOT add compost to – at the time you start the comparison. Make sure the sections receive the same amount of watering. After a week or so – or after several days when it hasn't rained, or when no water has been applied – check the soil in the two areas. We bet that you'll find the composted soil still moist to the touch, on top and under the surface… while the non-composted area is likely to be dry in both places. Keep a 'photo journal' of the sections for comparison as time goes by. You'll see for yourself

that the composted area makes better use of the water…and therefore, needs less of it to thrive.

Take advantage of all those leaves that have fallen and consider starting a compost area in your backyard. It isn't hard to do – in fact, here's a web link that will give you some much more in-depth information about composting as well as some simple containers that you can construct yourself. Not handy with tools? The local home improvement stores and online gardening 'shops' have some great 'store-bought' composting options – ranging from simple to complex.

by Carol Fraser, Water Conservation Specialist, Gardener & Educator

Moms….don't let your babies grow up to be Texas Water Hogs!

According to the experts, while the population of Texas is expected to double by 2050, we will only be able to meet 70 percent of our water demands at that time. Today's youngsters will be the adults and homeowners of tomorrow who will have to make intelligent choices about preserving -- and extending -- our precious water supplies.

It is up to us to make sure that they understand the importance of developing good, water-wise habits today so that they will be prepared for their responsibilities in the future. Involve your children in doing a household water 'audit' to discover how much water you use each month…then take some deliberate conserving actions and measure your success with the next month's water bill.

What a great way to demonstrate that the water we conserve today can serve us tomorrow.

Isn't it time to STOP WASTING WATER?

With a few twists of the wrist and some old fashioned common sense, you can save water and money.

1. Go low-flow. Hey, this message is for you, water wasters! 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?

Here's how...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 screw into 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 you haven't given a thought to 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 hardware store.

2. Retrofit your faucets. If you have an opportunity to browse the plumbing aisles at your local home improvement store, check out 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.

(NOTE: FBCMUD#25 is a participating member of the EPA program!) You can already find the label on high-efficiency toilets; bathroom faucets and aerators are next in line. The WaterSense program also certifies landscapers who have been trained to use water wisely.

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

4. Reduce the flow. There are, unfortunately, kitchen chores that demand an open spigot, but you can still go with a trickle, instead of a torrent. Restrict the water flow to the width of a drinking straw and you'll save up to a gallon of water per minute.

5. Stop the flow. Turn the water off while you brush your teeth. Running the water for two minutes sends 2 gallons of water down the drain.

6. Forget to flush once in a while and save up to 4.5 gallons per memory lapse if you have one of the older model toilets.

7. Use the right setting. The permanent-press setting on your washing machine uses 5 gallons more per load than the regular setting. Reserve it for clothes that need line-drying.

8. 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 shower shorter.

9. 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!

10. Fill 'er up. Run the dishwasher and the clothes washer with full loads.

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

12. Test the toilet. 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. STOP that! 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.

13. Turn off the water while you shave and soap up. If you shave in the shower, you might consider installing one of the nifty shower wall mirrors...some even have waterproof radios.

14. 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.

15. 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. The average lawn needs only one inch of water applied a week during the spring and summer growing seasons. Irrigation systems should be shut off in the late fall.

16. Get your car washed. Take your car out for a shampoo and rinse. 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. Experts suggest that if every American took the lazy way out and had a professional car wash just once a year, the total savings could amount to 8.7 billion gallons of water.

The water we conserve today can serve us tomorrow!

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Here are the results of our of our Fall Food Drive...

Thanks to everyone who participated to make this Drive a HUGE success!

First Place:
Orchard Lakes 24% participation
(2nd Place last food drive)
Second Place:
Stratford Park 16% participation
(1st Place last food drive)
Third Place tie:
Pheasant Creek 13% participation
(3rd Place last food drive)
Third Place tie:
Summerfield 13% participation

Chelsea Harbour 11% participation
Old Orchard 7% participation
Oak Lake Ct. 6% participation
Park Pointe 3% participation

"For many of us, water simply flows from a faucet, and we think little about it beyond this point of contact. We have lost a sense of respect for the wild river, for the complex workings of a wetland, for the intricate web of life that water supports."

Sandra Postel, Last Oasis: Facing Water Scarcity