

WATER Works!

Provided as a public service for our neighbors and customers...

**Harris County Water
Control and Improvement
District 132**

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***The water we
conserve today
can serve us
tomorrow!***

A MESSAGE FROM THE BOARD...

Starting a new year always seems to bring to mind those pesky “resolutions” -- you know, the list of things we promise ourselves we’ll do or tackle or achieve in the coming year. They are always so bright and shiny new in January, but somehow, after months of declining interest, by the time Spring comes around, they somehow get posted over on the bulletin board of life. That isn’t a judgement of whether or not they were important in the first place...but a commentary on how our stressful lives tend to veer us away from our intended course. Lots of folks solve this dilemma by not making resolutions at all. Others just repeat the same cycle year after year, hoping each time to do better.

Whatever your own personal approach to goal setting might be, we’d like to ask you to consider making water conservation -- or the efficient use of this finite natural resource -- one of your top priorities for now and into the future. Each month, on average, HCWCID 132 supplies 21.2 Million gallons of water to our customers. In the summer months, the amount is significantly higher because of lawn and garden irrigation usage.

Currently, this water comes from groundwater wells here in the District. In 2010, we will begin receiving surface water as part of a mandate to reduce our reliance on groundwater in order to help relieve demand on our aquifers and allow them to recharge. This conversion to surface water -- while critical to our long term water supply -- is costly and will continue to impact our water bills in the years to come. As the price of water increases, it makes good sense to use every drop of water more efficiently -- and to learn how to avoid wasting it in every way we can.

This is something that can be done by people of all ages...in fact, the best thing we can do for our children is to teach them that stewardship of our planet’s natural resources is the right thing to do. This issue of **Water Works!** contains some things you can do inside and outside your home to help stretch our water resources. We hope that this information is helpful and that it inspires you to use water wisely. Each time you turn on the tap, ask yourself, “Is it worth the water?”

Spring is a Time of Renewal

Each year, when the trees are suddenly crowned by their brilliant green canopies and we get the first glimpse of fuchsia azalea blooms, gardening 'fever' sweeps the area. We can't wait to get our hands dirty...to plant new color or perhaps some mouth-watering tomatoes. Mother Nature is alive and well and her siren song lures us outside.

This is also true at the award-winning Garden at WCID 132's water plant. In fact, this year we are embarking on the next phase of expansion and will be installing some new amenities and demonstration areas.

"This lovely garden belongs to our customers and neighbors," explained Bob Daniel, president of WCID 132's Board of Directors. "We have a unique opportunity to improve and expand our outdoor 'classroom' to show the many things we can do in our own yards and gardens to use our precious water supplies more efficiently. The days of cheap and plentiful water are history," he continued, "and it makes good sense to avoid wasting it whenever possible."

Originally, the garden, completed in January 2004, contained numerous drought-tolerant plants, and a variety of irrigation methods demonstrations. A wisteria covered arbor shades a bench ideal for quiet reflection and enjoying the many birds and butterflies that populate the garden. A series of signs help to identify the plants.

During the past year, a compost demonstration area was introduced during a special Compost Day in the Garden, followed by an Earth Day celebration that focused

on ways to Reduce, Reuse, and Recycle. The Garden has also been the site for numerous science teacher workshops on water and conservation themes.

Recently, the Garden received the 2007 Green Industry Contribution Award from PLANET (the Professional Landcare Network).

Time for a Facelift

After almost four years of constant use by neighbors and educators, the Board is working with master gardeners and landscape/habitat experts to take the area to the next level. Already, some of the demonstration areas are being reshaped and laid out, and initial designs are being considered.

"It is our goal to provide hands-on information and examples of what homeowners can do to save water and, at the same time, enhance their yard, garden and environment," said Bill Papp, long time board member for the District. "There are a lot of myths out there that suggest that without lots and lots of water you can't have a nice lawn or landscape."

"That simply isn't true," he emphasized. "In fact, most of



our lawns are seriously overwatered...and that just encourages 'lazy' grass that doesn't grow deep roots. If it is ever deprived of water for any period of time, it just can't hold on. In addition




Spring weather is like a child's face, changing three times a day.

Chinese proverb

tion to our Garden projects," Papp said, "we are getting ready to launch a major program for irrigation control among a sampling of the District's major water users. More information about this program will be coming soon."

The District will accomplish the Garden expansion over the next several years, with construction and visible modifications beginning this spring. Currently, there are plans to expand the compost exhibit, create water harvesting demonstration areas, and to incorporate a magnificent Monarch Butterfly Waystation into the Garden, as well. Experts in each specific area are being consulted to make sure the plans are consistent with other ongoing programs available through Texas A&M Cooperative Extension, private partners, donations, and other successful programs in the state.

For more information about these efforts, please visit the Garden (address) and watch the plans develop on our websites: www.HoustonWaterGarden.com and www.hcwid132.com. 

Here's proof that one person CAN MAKE A DIFFERENCE!

To anyone who has ever met Carole Baker, it is not surprising to find this quote from anthropologist and writer Margaret Meade at the bottom of her e-mail messages: *“Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.”* **Carole Baker**, known far and wide as the *Queen of Conservation*, has indeed made a difference in how we think about the water we use.

This diminutive woman from Texas plays a pivotal role in the global water debate and is as much at home at the United Nations as she is in the halls of the Texas state capital. She is armed with statistics and common sense and she seldom takes “No” for an answer.

Getting her feet wet...

Carole accepted a job with the Harris-Galveston Subsidence District in 1990 to serve as Public Information Officer. The District was already well into its mission to reduce reliance on groundwater in order to relieve demand on the area's critical aquifers and to halt ground subsidence.

During her first few weeks on the job, she met Jeff Taylor, in the Public Works Department for the City of Houston. He invited her to attend a meeting of the American Water Works Association Ad Hoc Conservation Committee and her journey began. (Today, with the leadership and participation of people like Carole and Jeff, this Committee is now a national Division of AWWA, making tremendous strides in promoting water efficiency across the country.)

Carole's job at the Subsidence District evolved into governmental affairs, and she began devoting an increasing amount of her time first at the State level, and subsequently at the federal level. With a philosophy of ‘regulate only when necessary,’ Carole has been instrumental in getting people to partner in achieving the common goal of using water wisely. Her path has taken her into corporate boardrooms, state and federal regulatory agencies, and into the offices of elected officials at all levels of government.

The more consensus development she accomplished, the more she dreamed of a national clearinghouse to stand with one voice for water efficiency as well as to become a forceful advocate for the stewardship of this precious natural resource.

Shock and AWE...

In late 2006, Carole's dream was on its way to becoming a reality. Confident but never boastful, she is excited about what she and key players from across the country have been able to accomplish. Announced by the Environmental Protection Agency's administrator, Steven Johnson, the **Alliance for Water Efficiency** -- AWE -- was created in partnership with numerous national, regional, and state organizations. The Alliance received its seed funding from EPA to build a water efficiency information clearinghouse and to work on plumbing and appliance codes and standards issues.

“The primary role of the organization,” Carole explained, “is to serve as an advocate for water efficiency research, evaluation,



**Carole Baker, Chair
Alliance for Water Efficiency**

and education. The members of our Charter Board of Directors represent water utilities, environmental organizations, plumbing and appliance manufacturers, the academic community, government and others.”

“We all have a stake in the efficient use of our water resources. Providing safe drinking water, maintaining economic competitiveness, and protecting ecosystems are all advanced by improvements in water use efficiency. Reducing water demand is often the lowest cost option for developing new supplies and in the future, it may be the only option. But widespread water-use efficiency requires strong advocacy and hard work, the kind of effort that the Alliance for Water Efficiency will provide.”

For more information about how you can participate in this important new organization, visit: www.allianceforwaterefficiency.org.



What Happens When the Water is Gone?

How vulnerable is south-east Texas to a serious water shortage? With sustained population growth in its burgeoning metropolitan areas, combined with Harris County's mandated conversion of ground water usage to surface water (to stem subsidence), we can't dismiss the possibility of a major water shortfall in our near future.

At this writing, eleven West Texas cities are battling serious water problems. Officials cut 2008 water allotments to these cities because a major water source, Lake Meredith, is dangerously depleted resulting from severe drought conditions in 2005 and 2006. The Canadian River Municipal Water Authority provides water from Lake Meredith as well as groundwater wells in Roberts County. For the third straight year, the cities (Pampa, Borger, Amarillo, Plainview, Lubbock, and six smaller cities) will get 5,000 fewer acre feet of water. One acre foot equals about 325,800 gallons.

Texas cities are not alone!

A drought of epic proportions in the U. S. Southeast threatens the water supply for millions including Georgia's fast-growing Atlanta area. Florida anticipates inadequate water resources to supply its continuing population boom. And those vast deposits of fresh water, The Great Lakes, are actually shrinking while upstate New York's reservoirs have dropped to record lows. And out west, the Sierra Nevada snowpack is melting faster each year.

The federal government projects that no fewer than thirty-six states will face water shortages within five years. Solving the problem means an end to cheap water in most areas. Experts estimate

that upgrading just the pipes alone to handle reliable new supplies will cost this country \$300 billion...yes, billion...over the next thirty years. As Senator Everett Dirksen once said about the Defense budget, "a billion here, a billion there, pretty soon you're talking about real money."



According to the U. S. Geological Survey's latest figures, the United States consumed more than 148 trillion gallons of water for residential, commercial, agricultural, manufacturing and miscellaneous uses in 2000, almost 500,000 gallons per person (by 2010, we'll have an additional 27 million citizens). But water scarcity is not just an American problem. Asia has 60% of the world's population and only 30% of its fresh water. By 2050, according to the United Nation's Intergovernmental Panel on Climate Change, upwards of 2 billion people across the globe could face major water shortages.

Why the anticipated shortfall?

Across America, freshwater supplies are predicted to be inadequate to meet our needs due to many factors, including population growth, urban sprawl, waste/excessive use, and drought. Counter measures...conservation, gray

water use, etc... can be taken to address some of these problems. Others, like the devastating south-east drought, pose a larger challenge. By definition, a drought is a long period of consistently below average precipitation in a region (*Note: Drought is different from aridity, which is a permanent feature of climate in regions where low precipitation is the norm, as in a desert*). If it persists, the conditions surrounding a drought gradually worsen and its negative impact on the affected population -- its ecosystem and agriculture -- increases.

Drought mitigation strategies...

There are steps we can take to minimize the impact of drought conditions, including widespread voluntary conservation to prevent overuse of available supplies, using treated and purified recycled water, the collection and storage of rainwater from roofs and other catchments and, when water shortages are extreme, mandated regulation of water use.

Water is one commodity we simply cannot live without. Conservation is no longer something we merely talk about. It must become a necessary part of our daily routine. Think of it this way: **The water we conserve today can serve us tomorrow!**



1-2-3 SAVE!

Three things you must do to stop wasting water at home!

There are countless reasons to use our finite water resources more efficiently. Our population is rapidly growing, making the protection of those resources more important than ever.

Many places around the globe are facing serious drought, deteriorating water quality, aquifer depletion, and precious few alternatives for replacement supplies. In the past, the majority have considered 'water conservation' as a fallback or emergency response to supply shortages, but the realities of today will cause us to change that outdated mindset. We must understand that efficient use of our water supplies is, in fact, a viable, long-term supply option -- the water we conserve today can serve us tomorrow!

The days of cheap and plentiful water are a thing of the past. But controlling costs is not completely out of your hands. Simple changes to curb wasteful water use habits can have a real impact on your bill. So, which steps will provide the biggest return for your efforts...saving water and money? Here's what the experts suggest:

1. REPAIR THOSE LEAKS!

Did you know that the single greatest water waster in the home is a leaking toilet? A leak of one gallon every six minutes - not an unusual amount - adds up to ten gallons in an hour, or 240 gallons per day! That can double your total water bill - so take steps regularly to check for leaks, which are often poorly seated tank balls, worn valves or other minor components that are relatively easy

and inexpensive to fix.

2. UPDATE AND SAVE...

While we're on the subject of toilets, if yours are more than 15 years old (the water-guzzling, 5-7 gallon flush toilets), it's time for an update to the now-mandated (for manufacturers) 1.6 gallon per flush model. You will see immediate savings on your water bill and conserve lots of water in the process. And what about your shower? Are you taking advantage of the new water saving shower heads? If not, you might consider that simple change as well. Replacing old ones can save 500-800 gallons per month.



3. 'WASH AWAY' INEFFICIENT LAUNDRY AND KITCHEN HABITS...

The washing machine is the second largest water user in the home, accounting for as much as 22 percent of total residential water use. There are now a wide variety of high-efficiency (HE) clothes washers on the market, most with the front-loading drums. These new options can save you 50 percent in gallons of water used...from a conventional washer's 56 gallons per



load to the HE's 27 gallons, or less, per load. If a new washer isn't in your current budget, you can make minor changes in your habits to save water today: run only with full loads and select minimum volume settings and shorter wash cycles.

The water efficiency of dishwashers has improved steadily since the mid 1990s. Today's models use only half of what earlier models used...coming in at an impressive 7 gallons per load. Again, avoiding waste is key here. Using a dishwasher properly can actually consume less water than doing them by hand: use with full loads only, minimize pre-washing by scraping off food with a utensil - not water, make sure dishes are positioned to get good water flow during the cycle, and select the shortest practical cycle.

Mandatory changes in our current water supply and the rising water rates that accompany them are forces out of our control...but we can take charge in our own homes to keep our individual rates down. Water is the single most important resource on our planet. We can't take advantage of its supply or devalue its importance. Without it, our families, pets, wildlife and industry would not exist. Saving money is good...saving resources for ourselves and generations to come is immeasurable. ■

DON'T FLUSH YOUR MONEY AWAY -- FIX THAT LEAK!

We've all heard the slow drip of a faucet or the hiss of a leaking toilet, but have we really stopped to think about how much of a drain on our finances (and resources) those seemingly minor leaks can cause?

Think about this: *a leaking toilet tank can waste up to 200 gallons of water per day and cost you over 60 cents per day or almost \$20 a month and a faucet dripping at a rate of one drop per second, can waste up to 2,700 gallons per year!* Now, that's reason enough to take the simple steps necessary to find (and fix) those leaks.

Look for the Warning Signs

There are the obvious: a dripping faucet or a running toilet, but some leaks are a bit less conspicuous and may only be detected by closely monitoring your monthly water bill and your water meter. One of the first indications of a water leak is an unexplained increase in your monthly water bill. If the increase can't be tied back to a known spike in usage (house

guests, faucet left on, increased outdoor use, etc.), then the chance of a leak (either from a faucet, toilet or a break in the water line between the meter and the house) is high.

Another way to identify leaks is to monitor your water meter. To do so, you will need two hours of no water usage. First step: turn off all the water - inside and outside the house. Write down the reading on the meter and the position of the sweep hand, and wait at least two hours. At the end of this time, read the meter again. If the second reading is different from the first, that means water is still flowing through the meter and you've got a leak to find...and fix!

Start With the Toilet

Most household water leaks occur here and testing to find out if you have one is a snap. Just take your basic food coloring (any color) out of the pantry and you're ready to go. Flush the toilet and then put enough food coloring in the tank to color the water. Don't flush the toilet again for at least an



hour. If the water in the bowl of the toilet shows coloring, you have a leak that needs to be repaired.

Simple Fix for a Leaky Faucet

Leaky faucets...especially those with slow drips...can be ignored for long periods of time. It's easy to put off something that seems to have so little impact. But what if we told you that *even the slowest of drips can cost you over \$20 per year!* Remember to check faucets inside and outside the home. In most cases, leaks can be fixed by replacing a worn washer or "O" ring...it's simple and inexpensive.

Still Can't Find the Leak?

If you're sure there's a leak, but you're having trouble finding its source, also look at your water softener, sprinkler system or a swimming pool with an automatic fill device. Still no luck? It may be time to call in an expert. They will more than likely find the elusive leak and get it fixed. Taking care of the problem sooner than later is key. Every day a leak isn't fixed, valuable water and money are wasted. ■

CHECKING FOR TOILET LEAKS...EASY AS 1, 2, 3

1

2

3

BOTTLE BIOLOGY*

Here's a great project to do at home with kids or grandkids. This simple activity not only demonstrates nature at work (the decomposition process) but you'll also end up with a useful product to feed your plants! Experts have demonstrated that adding a good layer of compost materials to landscaped areas can reduce the need to water the area by as much as 50 percent! And, the unwanted materials used in composting (leaves, pine straw, grass clippings) won't end up in our landfills.

Make a Compost Column



Materials:

- Three 2-liter plastic bottles
- One 1.5" square piece of meshed plastic (from potato sack, grapefruit sack, etc)
- Tools to work with: scissors, craft knife, pen, small punch
- Tape to use for stability (optional)

Process:

- Remove labels from bottles
- Designate each bottle A, or B, or C. Mark each bottle accordingly
- Cut the top off bottle A approximately 3 inches below the neck.
- Mark the portion of the bottle above the cut #1 and the portion below the cut #2
- Cut bottle B in two locations -- above the shoulder at the top and just above the base at the bottom so that the cylinder has two tapered ends
- Mark bottle B #3. You will not use the top or bottom pieces
- Cut bottle C 2.5 to 3" above the base. Mark #4. You will not use the bottom piece

Assemble:

- Remove the lid from column piece #4. Discard the lid and use the disc from the opening to attach the meshed plastic piece over the mouth of the bottle
- Invert column #4 into the base piece which is #2
- Stack column #3 onto column #4 and tape around the middle for stability
- Poke small air holes in columns #3 and #4
- Place top piece #1 on the top of column #3 leaving the top on.

The top of the column is removable to control product and humidity. Fill the column with leaves, sticks, vegetables, and fruit kitchen waste. Add approximately 1 to 2 cups of organic soil, spreading as you put in other ingredients. Add rain water to make moist but not wet. (Water will drain through the bottom of the center column. You can test this water for pH or use on your plants.) After verifying that the air holes are adequate for an aerobic environment, place column in a dark place -- or wherever you chose -- for a couple of months and let nature turn your materials into finished compost.

(*Originally funded by a grant from the National Science Foundation)



Answers to the word puzzle can be found in the conservation section of our website...www.hcwcid132.com

Time to STOP Stormwater Pollution...

Find the hidden words within the grid of letters.

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R K S G X O W K Y P A F Y R C
E K N T X L R A O M F E T U I
T E M E O E W L V N J R I N X
A H O K K R L R S M N T N O O
W F P A E U M Z X O T I U F T
D G L T T T N S I E D L M F S
N D A I X P R T E G W I M A U
U W O E T R A G C W K Z O V J
O N T M P R P O N D E E C T M
R S T N E M T A E R T R E E Q
G B T P C O N C R E T E A R P
S T O R M W A T E R R D Y P C
R O S E E U O Y A B O A Q N K
C S M W W A T D A W K J I W J
W U N V N Z M U N D J C N N L

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bayou	creek	meadow	runoff	toxic
community	fertilizer	pollution	stormsewer	treatment
concrete	groundwater	pond	stormwater	waterway
cooperation	lake	rain	stream	

Please mail water payments to:
HCWCID 132
P.O. Box 692170
Houston, Texas
77269-2170

Office Address:
17451 Village Green
Houston, Texas 77040

All phone calls -- including billing questions, to set up or disconnect service, emergencies or any other inquiry:

832-467-1599
fax **832-467-1610**

If you should have water or sewer-related problems, call our water district operator **BEFORE** calling a plumber or other private service. We will investigate the problem at no cost to your. If it is a water district-related problem, we will arrange to correct it as quickly as possible. If it is **NOT** a water district problem, we will provide our advice.

Remember, call us first!
We are here to help you!

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