

Water Wisdom

Conserving Earth's Most Precious Resource



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Questions of the Day.....

How Much Water Is Used in an Office Building Per Person?

- .
- .
- .
- .
- .
- .

How Much Water Does a Cooling Tower Consume?



Did You Know.....

- We use 47 billion gallons of fresh water a day in the US for domestic purposes (160 gallons per person)
- A typical office building uses 15 gallons of water per day, per person
 - *6 gallons for domestic use*
 - *4 gallons for HVAC*
 - *3 gallons for irrigation*
 - *2 gallons for “other”*
- Make up water for a cooling tower could be more than 43,000 gallons per day.
- Executive Order 13514 requires a two percent annual reduction in water use (compared to a FY 2007 baseline).



Is Atlanta Serious About Water Conservation?

For a **FREE Water Conservation Kit**

Click to download pledge card

Contains:

- ◆ low-flow showerhead
- ◆ kitchen & bathroom faucet aerators
- ◆ flow measurement bag
- ◆ toilet dye tablets & instructions

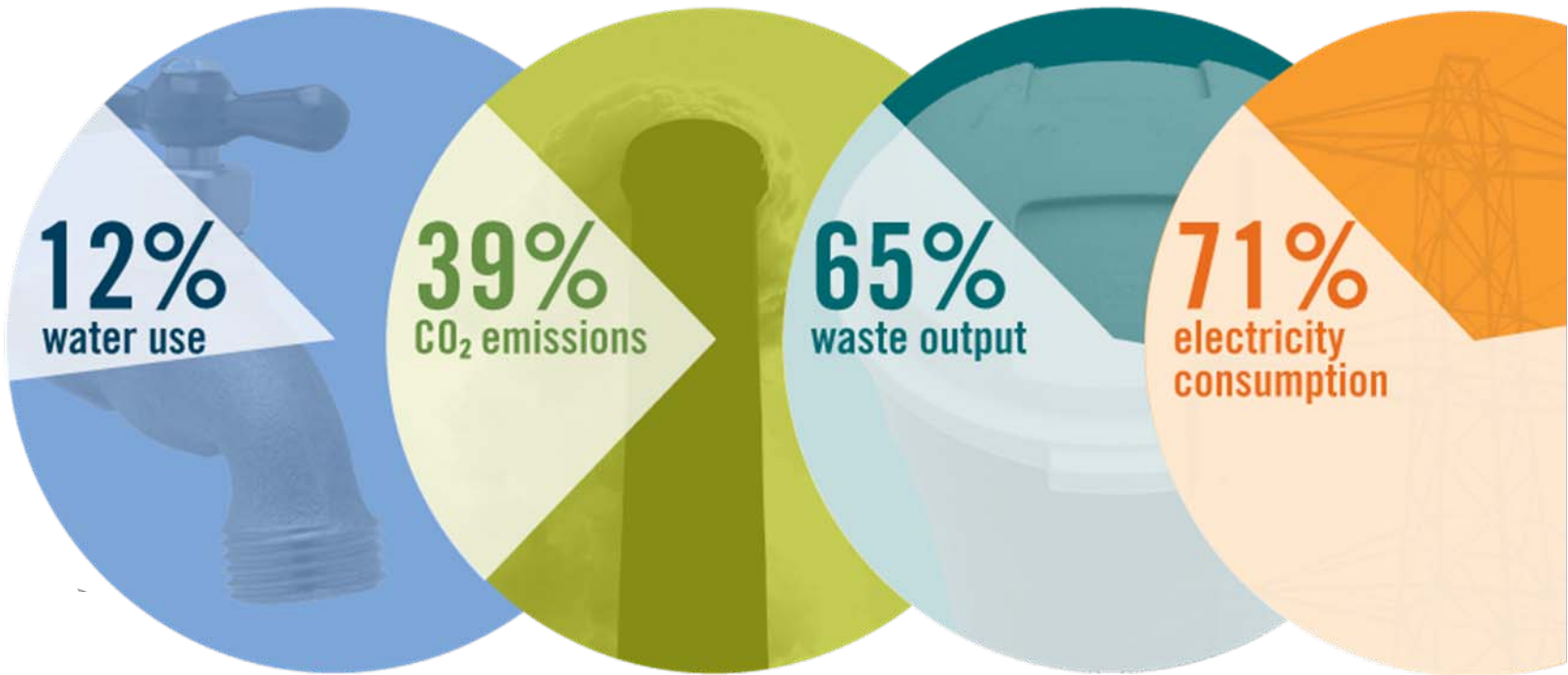


<http://www.atlantawatershed.org/Conserve/>

Did you get yours?



U.S. Corporate Buildings



Source: USGBC

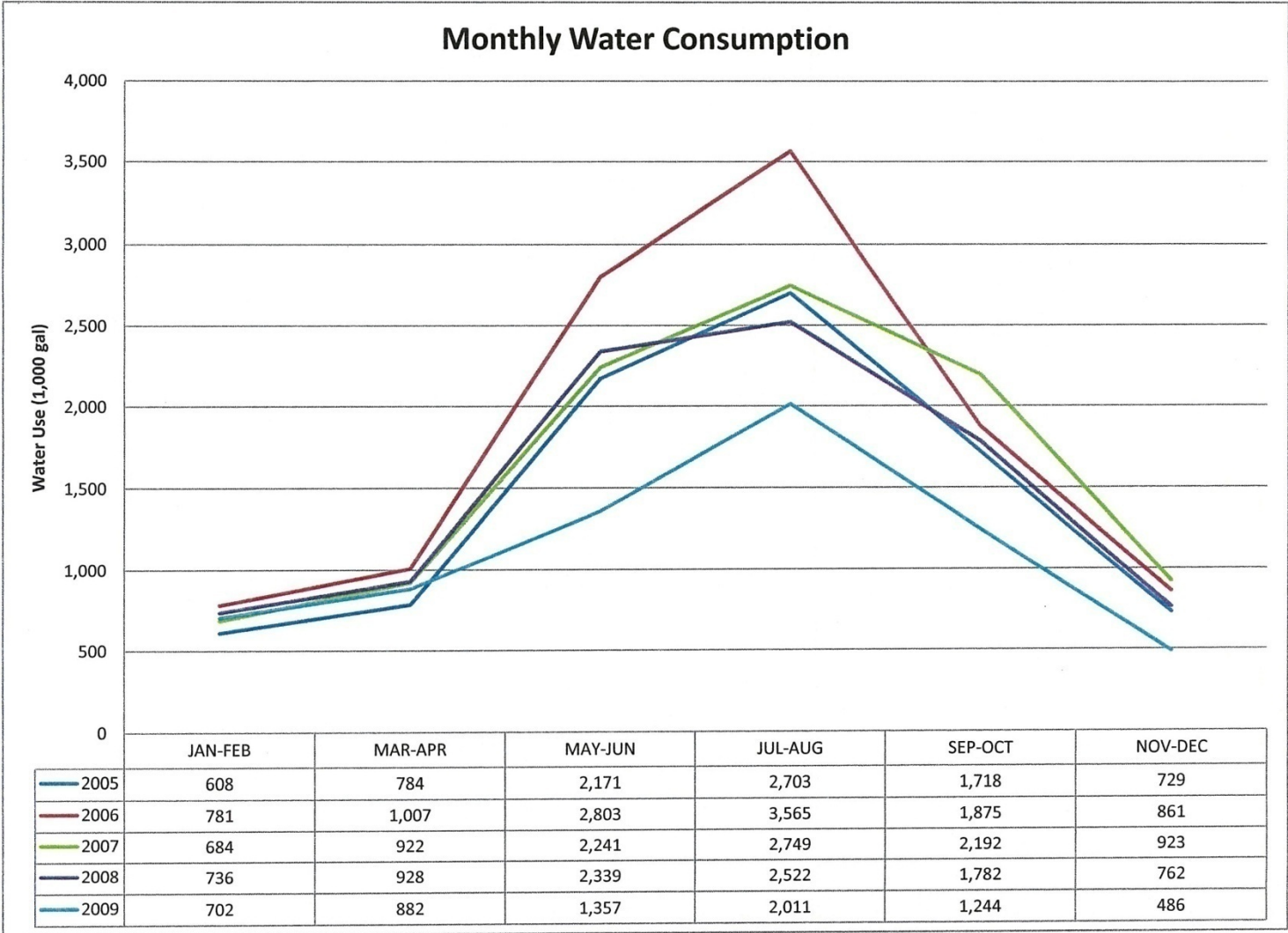
Managing The Cost of Water

- **Meters, Meters, Meters**
 - Meter Irrigation and Cooling Towers
 - Are you still paying sewer charges?
- **Track your water meters for the facility**
- **Benchmark it relative to past performance**
- **View percent improvement in weather-normalized source energy**

How many people use Energy Star to benchmark their building? Did you know you can use it for water too?



Tracking Water Use



In the WC (*aka bagno, toilette, vessa, loo*)

- **Toilets**
 - 1.3 – 1.6 gpf toilets (3 year payback, incentives?)
 - With the new dual flush handle? Payback in 3-4 years.
- **Urinals**
 - 2 cups? 8 cups? No cups????
 - Waterless – A brand new game
- **Aerators.....Just do it**
 - .5/.75/1 GPM (<1 year)

But which ones will you do first?



Hi Efficiency Landscaping !

- In The Ground...
 - *“You couldn’t grow old in that dirt!”*
 - Native plantings to match the climate and pests
- Drip, Drip, Drip
 - O&M
 - Mulch
 - Meters and Smart controllers (6 – 24 months payback)
 - Condensate? Blowdown? Other sources?

How much water do you use at home?



HVAC Systems

- Doesn't need to be potable....
 - Reduce, Recycle, Reuse
 - Natural sources?
- A clean pipe is a happy pipe!
 - Chemical and Non Chemical Systems
 - Magnetic, Ultrasonic, AC Induction, Electrostatic
- VFDs, Splash and Drift

***A large data center can use 300,000 gallons
of water per day?***



*“Whiskey is for drinking.
Water is for fighting over.”*
-Mark Twain

Thank you

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