

TOP TEN DO and DON'T



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Why Worry About Water

Humanity's Top Ten Problems for next 50 years

1. ENERGY
2. WATER
3. FOOD
4. ENVIRONMENT
5. POVERTY
6. TERRORISM & WAR
7. DISEASE
8. EDUCATION
9. DEMOCRACY
10. POPULATION



2004	6.5	Billion People
2050	~ 10	Billion People

DON'T

- **DON'T** irrigate during or 12 hours before or after a rain event
- **DON'T** allow your irrigation systems to go without maintenance
- **DON'T** waste mother natures free/provided resources (FRESH CLEAN WATER)
- **DON'T** utilize bleeding edge technology that is not proven and/or that is a life cycle cost loser (NO BLACK BOXES)

DON'T

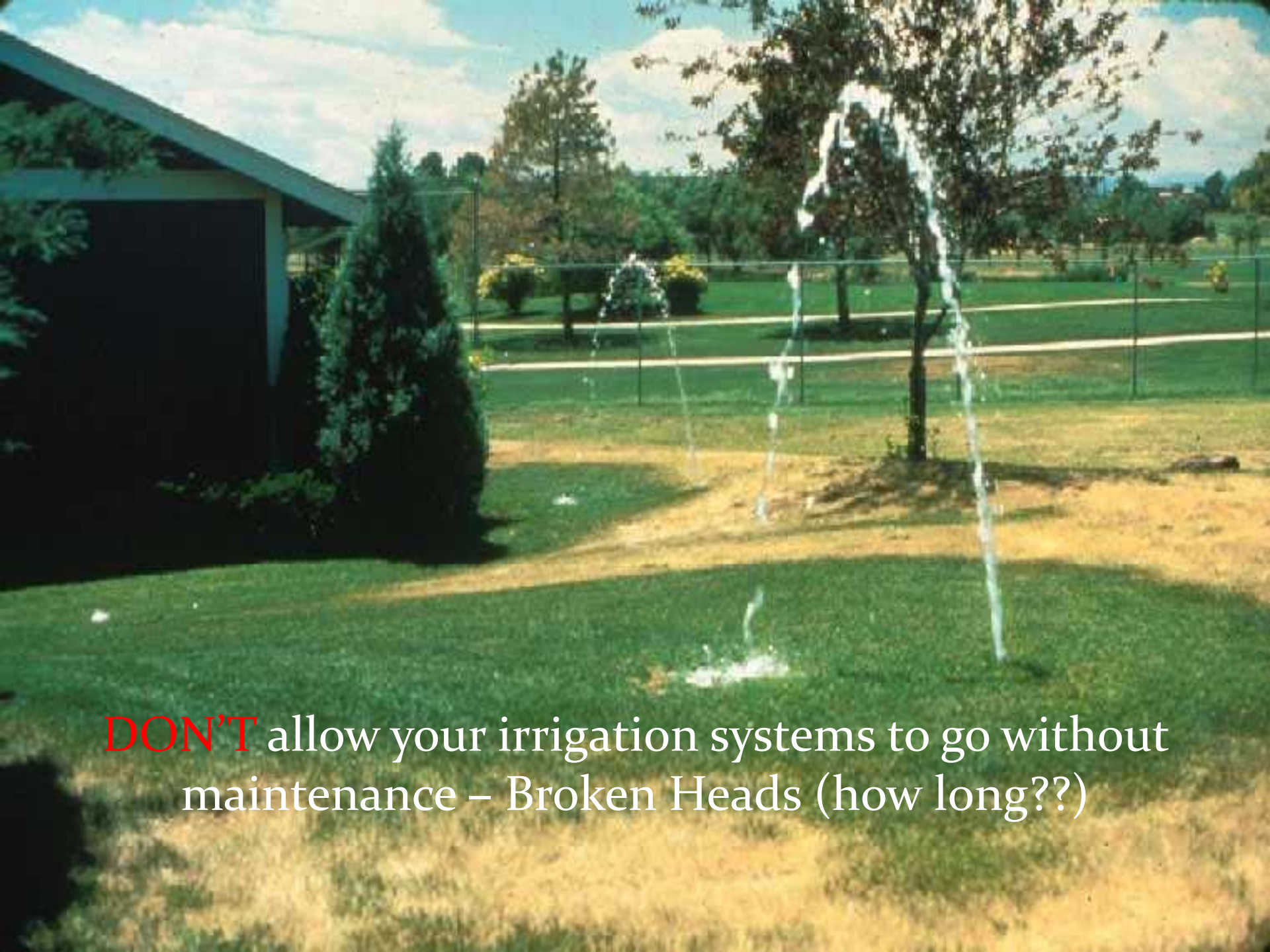
- DON'T Over do it on plumbing retrofits
- DON'T Forget to do a water balance
- DON'T Forget to review billing
- DON'T Assume staff will conserve – training is key
- DON'T Forget to address distribution losses



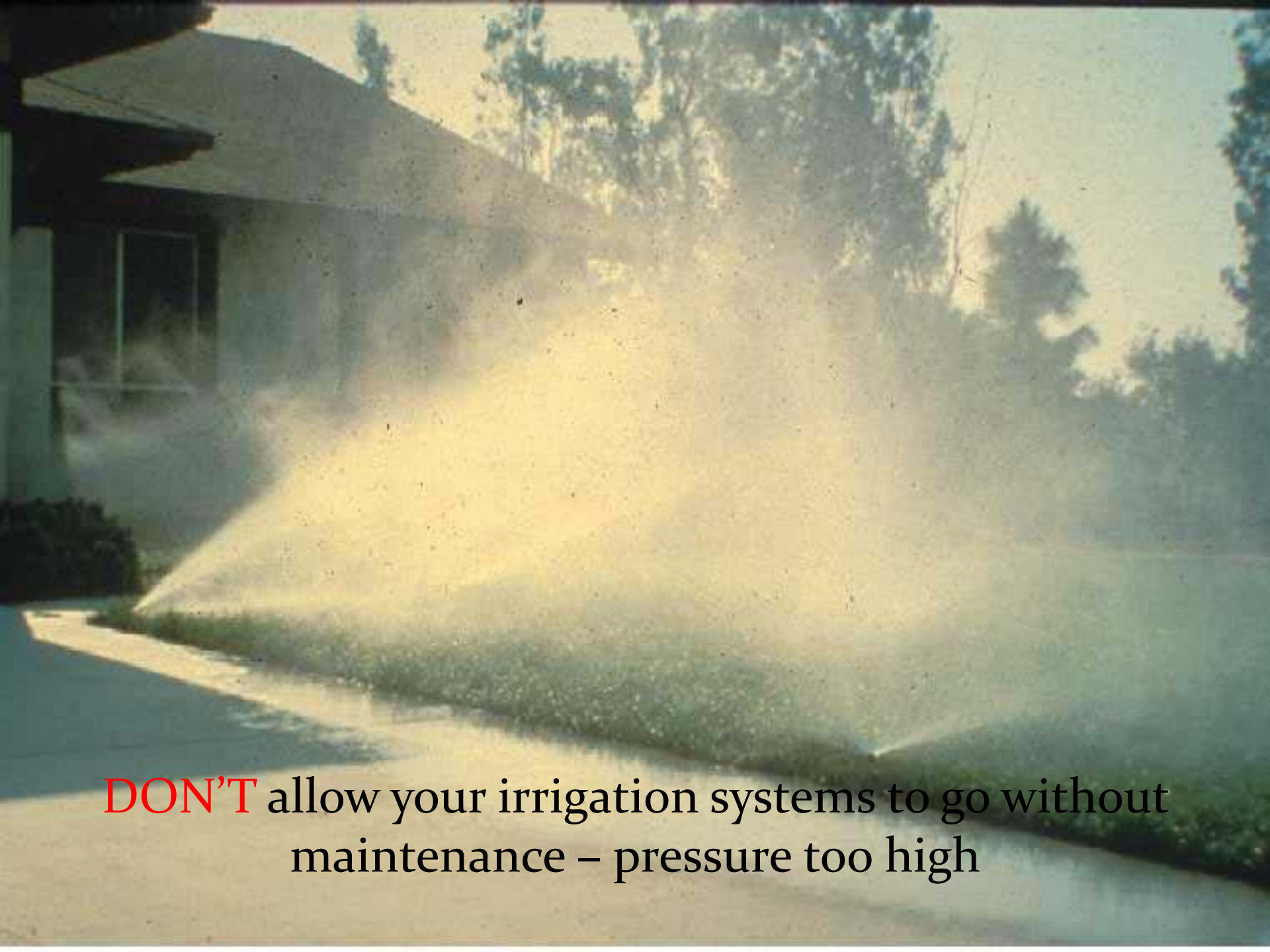
ONLY IN TEXAS!

Mother Nature is doing a great job here
DON'T– Irrigate DURING a rain event



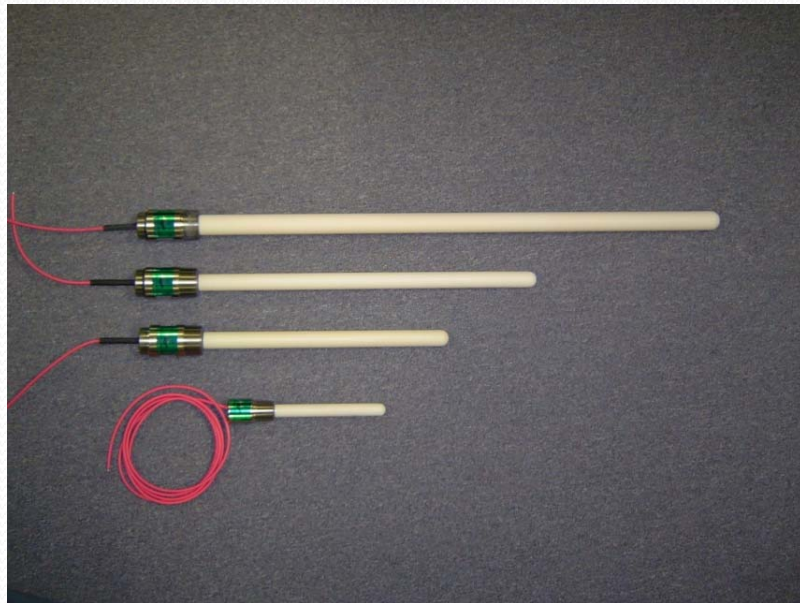


DON'T allow your irrigation systems to go without maintenance – Broken Heads (how long??)



DON'T allow your irrigation systems to go without maintenance – pressure too high

DON'T Use Bleeding Edge Technology



Cooling Tower Treatment

The core of AYUS technology is based on the principle that the characteristic of water is affected by its environment and can therefore be influenced.



In its life cycle, water takes on and stores both positive and negative influences from the environments it encounters.

Ayus introduces specific, combinations of measured frequencies (without magnets or electrical devices). These frequencies amplify the positive and neutralize the negative influences. This effects changes to the molecular bonds within the water that enable H₂O to perform at its best.

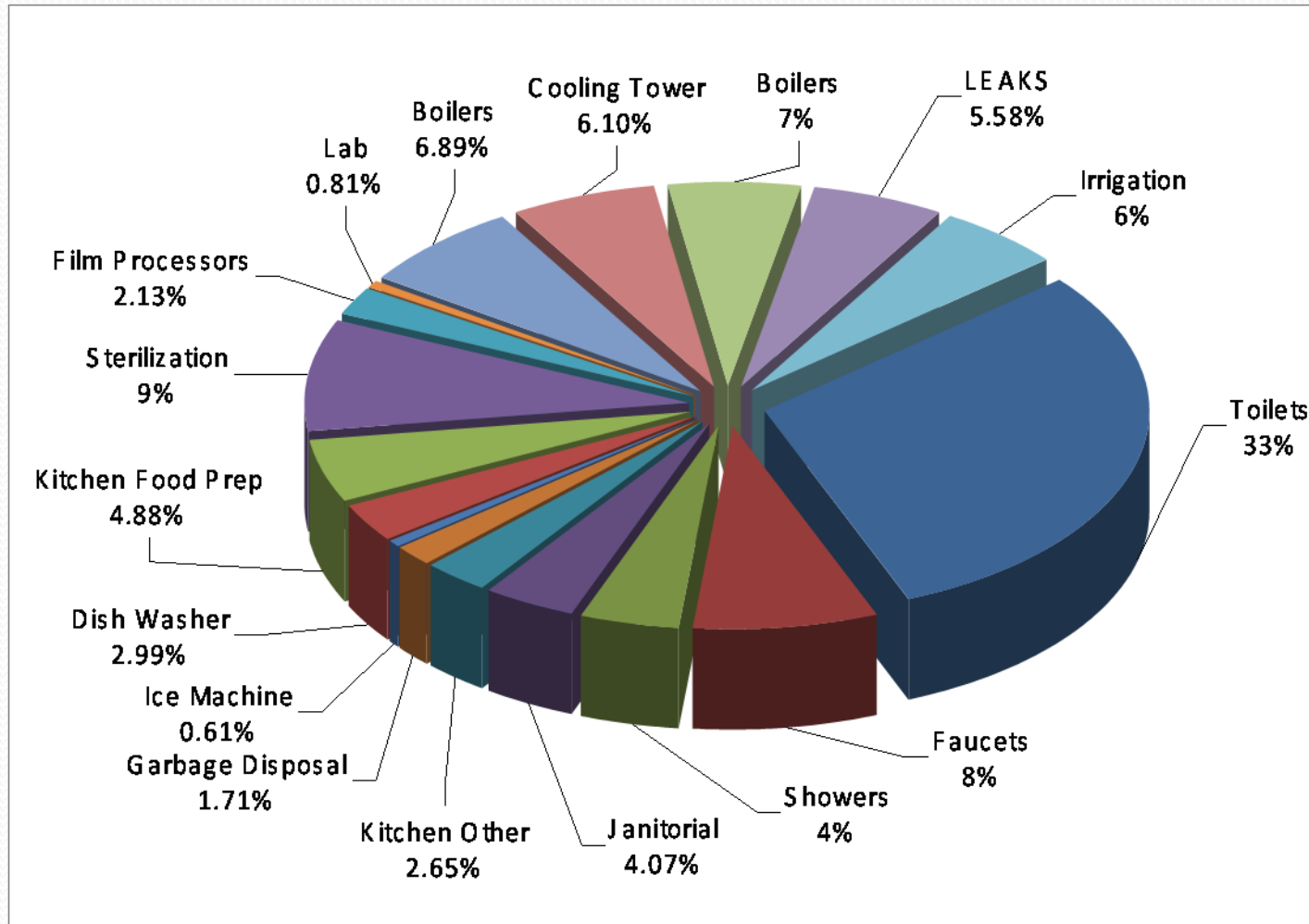
Water achieves its ultimate balance and is returned back to its natural, perfect state.

Water Treatment

Plumbing - DON'T over do it



DON'T Skip the Water Balance



DON'T forget to review billing

10 FRANCIS ST BOSTON, MA 02215-5501		METER NUMBER 93999406	BILLING PERIOD 29 DAYS	PREVIOUS BILL DATE 06/28/06	3759750
BILLING ACTIVITY					
BALANCE AS OF 07/05/06					\$4,458.97
PAYMENTS AND ADJUSTMENTS:					
07/28/06 PAYMENT			2,963.36CR		
07/28/06 PAYMENT			1,495.61CR		
06/02/06 PREVIOUS BALANCE					\$0.00
CURRENT CHARGES FOR THE EIGHTH BILL OF 2006					
WATER			1,455.27	1668.71	
SEWER			1,732.82	1732.82	
2 8" FIRE PIPE			213.44		
TOTAL CURRENT CHARGES					<u>\$3,401.53</u>
PLEASE PAY TOTAL AMOUNT DUE					\$3,401.53

Are we being charged the correct rates, receiving deductions or credits
 MENTION - IMPERVIOUS SURFACE CHARGES FOR WASHINGTON DC

DON'T forget staff training



Especially those who heavily impact water usage
Dietary, house keeping, researchers, laundry

DON'T forget to look for Distribution Losses



30" line – 250 GPM

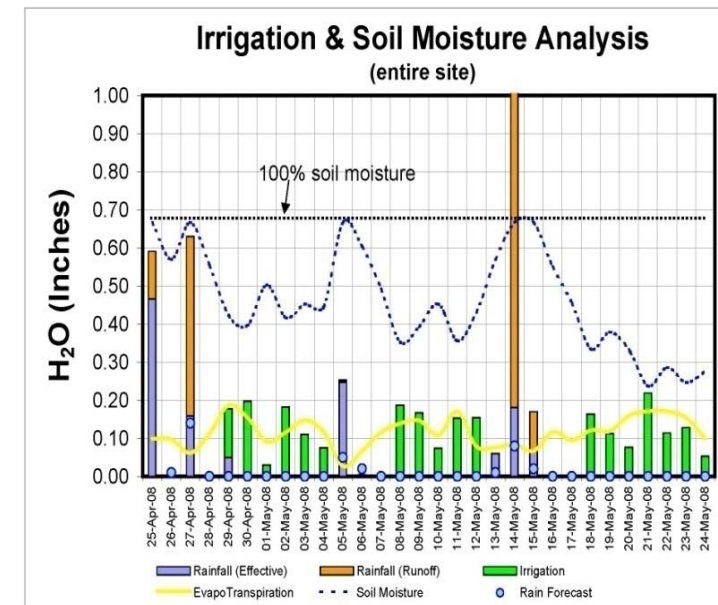
The PLEASE DO TOP 10

- DO Utilize intelligent irrigation systems – know your system & soil needs
- DO Maintenance semi annually on your irrigation system, controls and distribution
- DO Let mother nature provide resources
 - CATCH THE RAIN for Irrigation/HVAC/Process
- DO Reuse condensate water
- DO Improve process water uses – ask do we really need potable water for this application

The PLEASE DO TOP 10

- DO Educate kitchen & maintenance staff
- DO Plumbing retrofits
- DO Measure & Verify
- DO Take advantage of water conservation rebates
- DO Consider hiring a professional

DO Augmenting Mother Nature with Intelligence



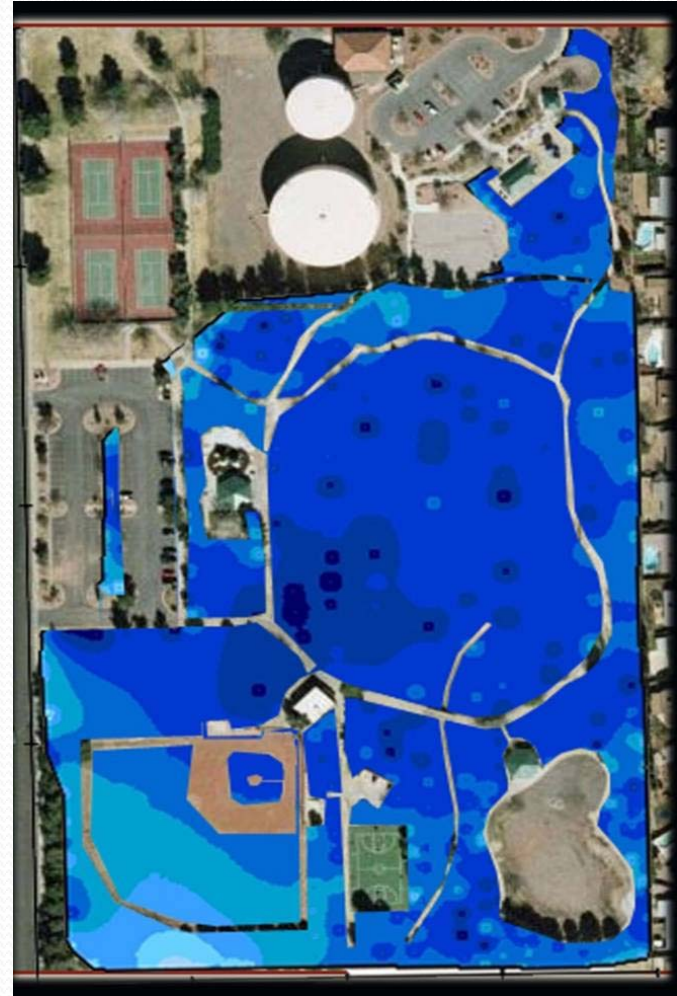
Irrigation is 20% of water usage in East 70% in West



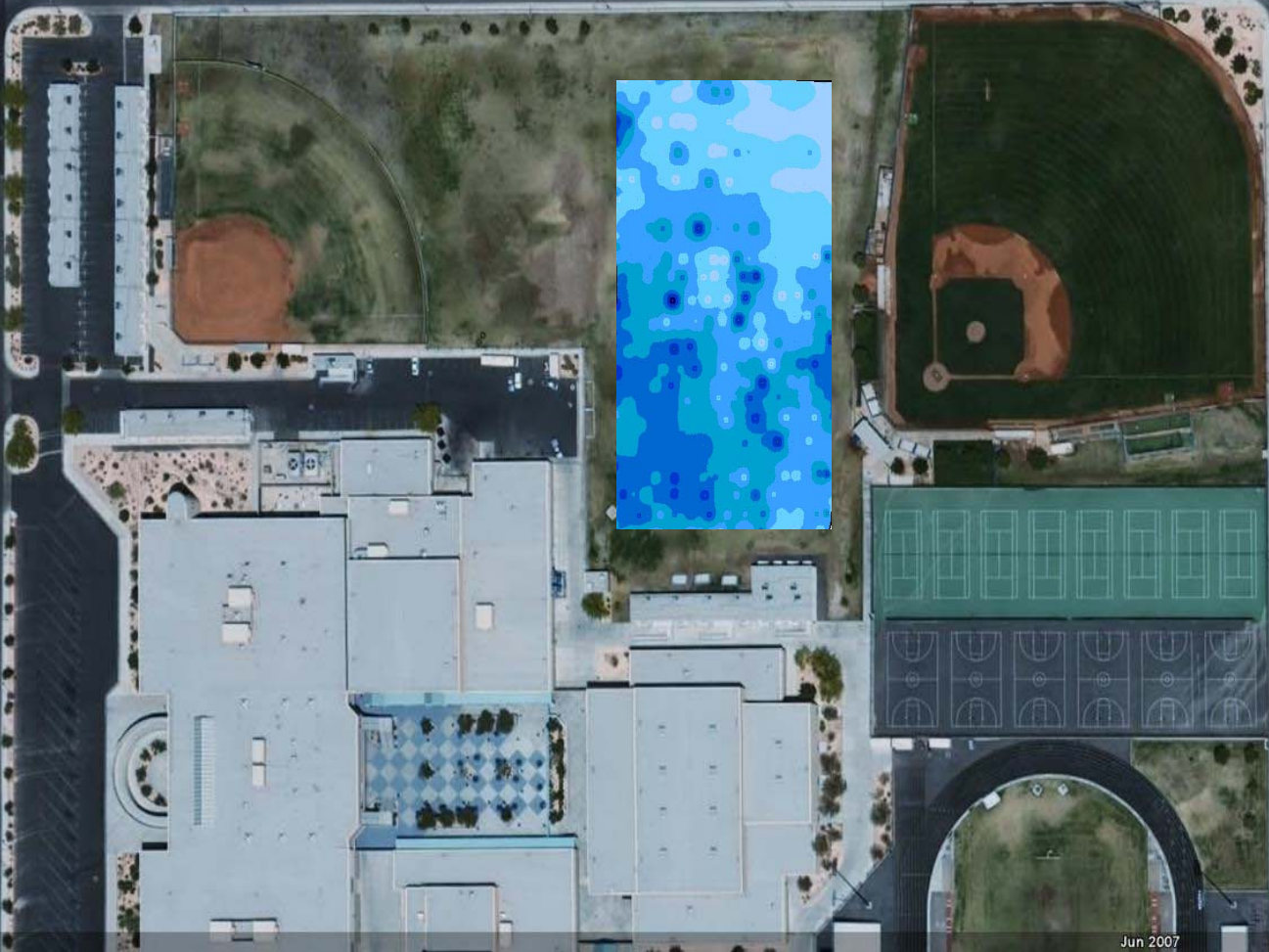
Summary of Measurements

Distribution Uniformity	62.01%
Total data points	627
Average reading	63.1
Minimum value	3.1
Maximum value	99.9
Standard deviation	18.2 (68%)

Max length in feet	1243.6
Max width in feet	708.8
Area in Acres	20.19



DO KNOW AND MAINTAIN YOUR SYSTEM
AND YOUR SOIL NEEDS



DO KNOW YOUR SYSTEM & MAINTAIN IT



Newer Irrigation Technologies



Weather Station



Combination
Analog-Digital
Flow Sensor



Web Enabled
Cell Phone

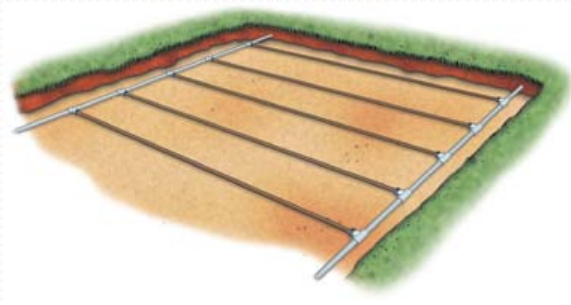
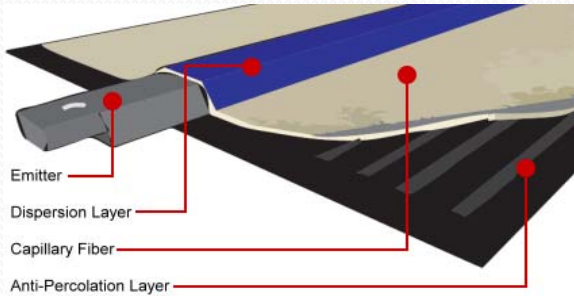


Soil Moisture Sensor



Remote
Control

Newer Irrigation Technologies



Subsurface
Irrigation



Control Valves



PR Valves



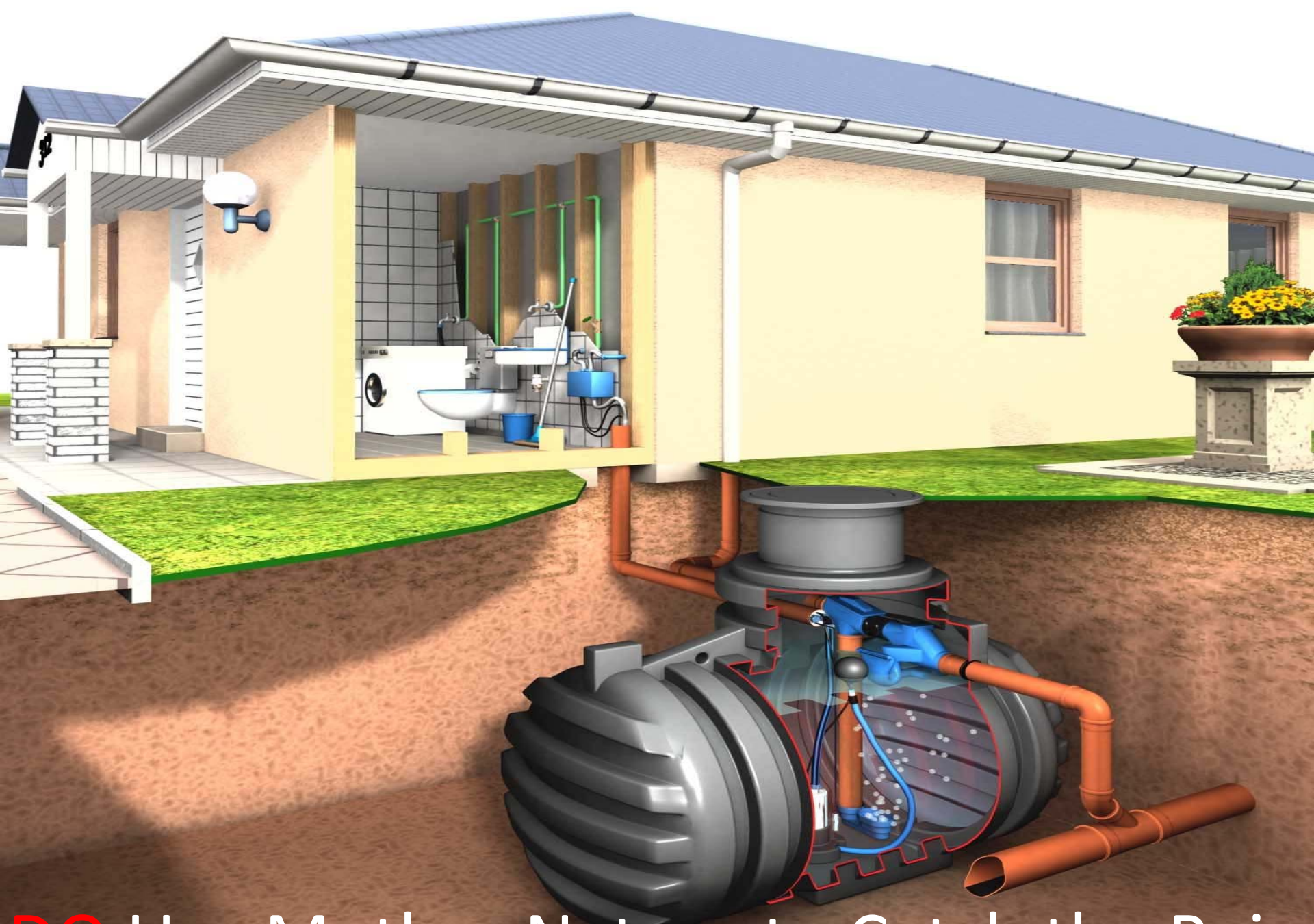
Pressure
Regulating
Heads



VFD Pump
Stations



DO Use Mother Nature to Catch the Rain



DO Use Mother Nature to Catch the Rain

Catching the Rain is Scalable



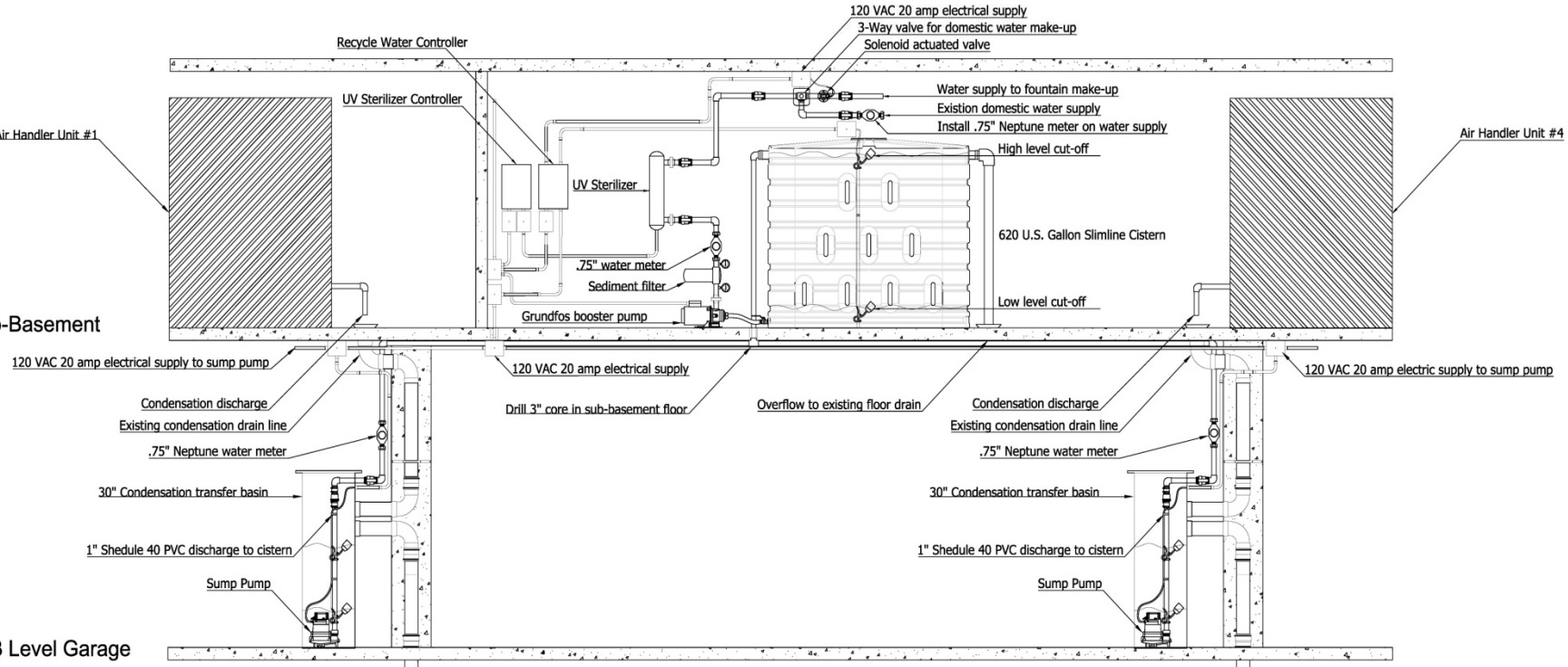
DO Use Mother Nature to Catch the Rain

DO Condensation Harvesting





DO Condensation Harvesting



DO Condensation Harvesting

DO Improve Process Applications



DO staff training



Especially those who heavily impact water usage
Dietary, house keeping, researchers, laundry

DO Educate Kitchen Staff



DO Plumbing Retrofits



Change China & Valve

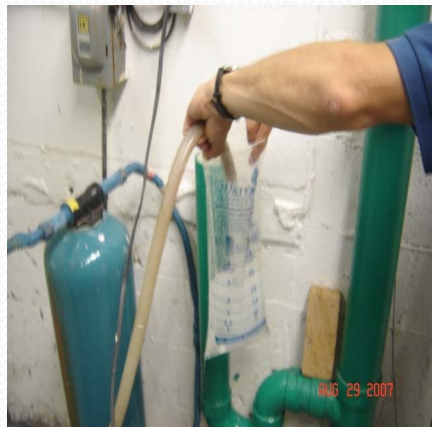


Balance Conservation
And Efficiency



Consider O&M

DO Measure & Verify



DO Leverage Rebates

Leverage rebates for toilets, free showerheads, aerators

- Austin Texas \$150 per toilet
- South Florida
- Denver
- Southern CA
- Washington DC

WATER SAVERS at the Enviro-Center

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DO Hire a Professional