Designing and Building Landscapes Using Only Rainwater
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- Owner of Sustainable Homes Inc.
- Past President Texas Rain Catchment Association
- ARCSA Member
- Certified Green Professional
- Task Group Member National Green Building Standard
- Member of NAHB Sustainability Committee
We have over 100 homes that run exclusively on Harvested Rainwater
San Antonio Food Bank 2011
Storage 130,000 Gallons
Collection Area 100,000 Sq. Ft.
San Antonio Food Bank Today
460,000 Gallons
Collection Area 200,000 Sq. Ft
300,000 Sq. Ft Roof
5 Acres of Parking
They collect from the roof, the HVAC condensate and the parking lot.
Storage is a concrete pipe 8’ x 8’ x ¾ of a mile long
1,800,000 gallons of Storage
YOU DON’T KNOW IT BUT YOU HAVE A TARGET ON YOUR BACK!

Irrigation Industry
Cities
Counties
States
EPA - Are Coming After You
How to Make Rainwater work for you
• What are the codes in your area?
• What are your water requirements?
• What is the project collection capability?
• What filtration or sanitation system will work for your application?
• Tank Types.
• How to sell Rainwater.
What are the codes in your area?

1. Is it allowed in your State, County, City?
2. Are there restrictions for Rainwater use?
3. What Purification systems do you need?
4. Can you mix Harvested Rainwater with Storm Water?
What are Your water requirement (Demands)?

1. Do you have an estimated annual water use (Plants, Turf...)
2. Type of Irrigation Used
3. Type of Plants Used (Native – Drought Tolerant)
What is your project collection capability

1. What is the annual rainfall in your area (100 yr. average)
2. What is the collection area of your project?
How to Calculate Water Capture

Example –

SA Food Bank – 100,000 Sq. FT divided by 1000 = 100
100 x 600 = 60,000 gallons of rain
In our area in Texas we get 30” annually = 1,800,000 gallons per year
What filtration or sanitation system will work for your application?

• Does Water have to made to Potable Water Standard?
• Can you use a Re-used or Reclaimed Water Standard?
Tank Types

Above Ground Tanks

Underground Tanks
How to sell Rainwater.
* Distribution Loss From Plant 10% - 15%
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* Efficiency of Power Plant: Nuclear - Coal - Natural Gas 15% - 35%
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* To get homeowners 2000 kWh we need to generate 2500 kWh
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* Virginia Water Research Center says it takes 25 gallons of water to produce 1 kWh of power
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* Efficiency of Power Plant  Nuclear- Coal- Natural Gas 15%-35%
* To get homeowners 2000 kWh we need to generate 2500 kWh
* Virgina Water Research Center says it takes 25 gallons of water to produce 1 kWh of power
* If we do the math we need to generate 2500 kWh of power for the homeowners but we need to use 62,500 gallons to do that
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