How to Use This Guide?

This handy guide hopes to make the process of designing & sizing your urban rainwater collection system much easier.

Step 1:
Choose a system type. Each type has its own pros and cons. Choose wisely.

Step 2:
Choose a cistern material & size. Design aesthetics and available space will dictate this decision.

Step 3:
Choose how you will use the water from your rainwater cistern. Usability concerns & budget will determine the best method for you.

The cost graph at the bottom provides an indication of the cost differences between the options.

System Sizing Information

Here’s the million dollar question…

How much storage should I install?

Remember the rainwater collection equation:
623 gallons from 1,000 sq ft per 1” of rain

The larger the cistern the better...

Due to local rainfall patterns, it is prudent to install the largest cistern possible. Don’t let your collection surface limit you. Larger cisterns will provide more opportunities to collect the periods of intense rainfall and allow you to use the water over the long dry spells we have.

Take it from us and our past clients…you will be much happier with more storage.

Services of IWS

We strive to provide creative, comprehensive solutions to all issues related to water usage and onsite water management. We create systems that help you conserve water, cut your utility bills, and reduce your water footprint.

- Rainwater collection systems
- Graywater reuse systems
- Drainage improvements
- Irrigation system design & installation
- Landscape design and installation
- Gutter installation
- DIY products and services

Contact Information

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1. Choose System Type

**Dry**
- Cistern must be located next to the house.
- Wet System: Cistern can be located away from the house.
- Dry System: Reduces collection efficiency.
- Underground System: Total hidden but higher cost.

**Wet**

**Underground**

Pros & Cons
- Dry System: Cistern must be located next to the house.
- Wet System: Cistern can be located away from the house.
- Dry System: Reduces collection efficiency.
- Underground System: Total hidden but higher cost.

2. Choose Cistern & Size

**Polyethylene**

**Galvanized Metal**

**Slimline**

Pros & Cons
- Cistern capacities range from 250 gallons to 5,000 gallons.
- All cistern types have extremely long life expectancies.
- Sufficient access to cistern location must be available.
- Due to rainfall patterns in Texas, larger cisterns will provide a better usage efficiency in the long term.

3. Choose Usage Method

**Hose Bibb**

**Pump > Hose Bibb**

**Pump > Irrigation System**

(Will require autofill or service switch mechanism)

Pros & Cons
- Gravity flow from a hose bibb only provides 0.44 psi / foot.
- Ex.: a full 6' tall cistern only provides 2.64 psi at hose bibb.
- A pump allows use of rainwater with garden hose / sprinkler.
- Connection to irrigation system ensures maximum efficiency of system but can often be a costly add-on.

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