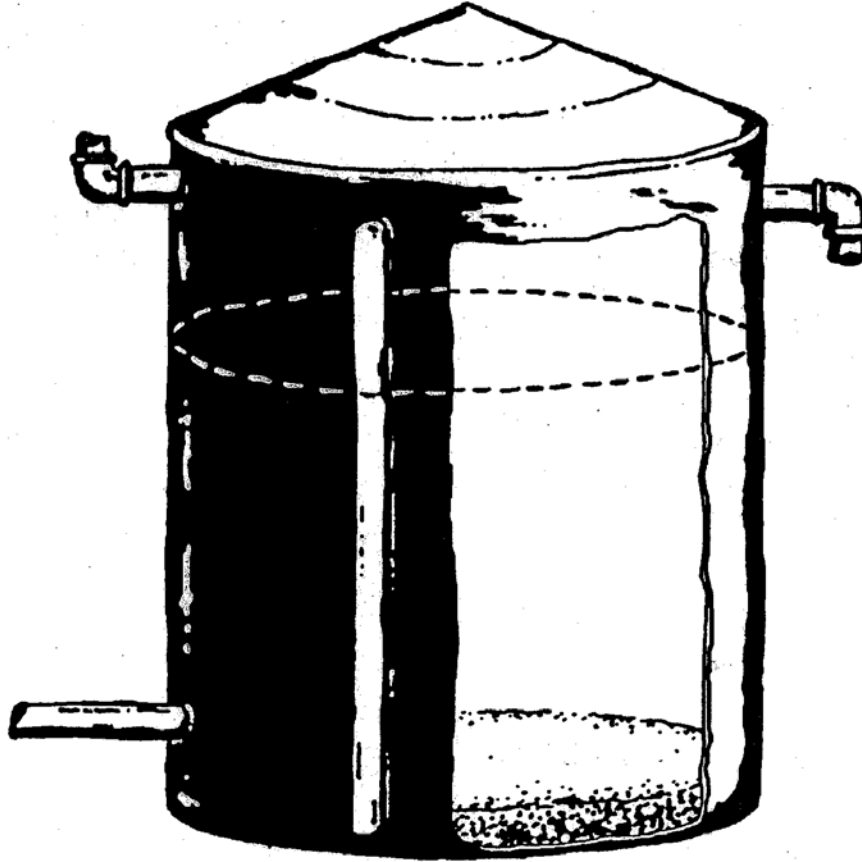


RAINWATER HARVESTING INCENTIVE PROGRAM



**WATER CONSERVATION DIVISION
P. O. Box 1088
AUSTIN, TX 78767
(512) 974-2199 FAX 974-6548
WATERCON@CI.AUSTIN.TX.US**

7/2009

CALCULATING OPTIMUM TANK SIZE

1. Determine the optimum tank capacity for the property size. An average of 10 inches falls during the months of June, July, August and September, and the typical system can collect and store 80% of that. Since 550 gallons of water can be collected from 1000 square feet of roof area during a 1 inch rain, 4,400 gallons of water is collected per 1000 sq. ft. of area. (.80 X [550 gallons X 10 inches] = 4400 gallons) over the course of those four months.

Square footage of rainwater collection area _____ ÷ 1000 X 5000 = _____ gallons.

2. Assume that the typical **St. Augustine grass lawn** requires 1 inch of water per week or about 560 gallons per 1000 sq. ft. using conventional spray irrigation. During the 16 week peak-water-use period, the landscape would require approximately 9000 gallons (560 gallons per week X 16 weeks = 8960 gallons) of water per 1000 sq. ft. On average, about 5000 gallons of that is provided by summer rainfall. Thus the remaining 4000 gallons would be provided by stored rainwater. Keep in mind that less water may be needed if alternative irrigation and WaterWise principles (minimal turf, drought tolerant plants, etc.) are employed.

Square footage of landscape to be watered _____ ÷ 1000 X 4000 = _____ gallons.

Optimum tank capacity, for this program, is the lesser of these two figures; however, alternative calculations are welcome for consideration.

Example

The Jones family has a home with a 1500 square foot metal roof in Austin. About 550 gallons of rainwater can be collected from a 1000 square foot roof in a one inch rain. In the summer months (June, July, August, September), Austin receives approximately 10 inches of rain. Thus, 4400 gallons can be collected during the summer months from a 1000 square foot roof. (.80 X [550 gallons X 10 inches] = 4400 gallons)

Size of collection area ÷ 1000 sq. ft. X 5000 gallons = gallons of collected summer rainfall

1500 sq. ft. ÷ 1000 sq. ft. X 5000 gallons = 7,500 gallons of collected summer rainfall

The Jones family wants to water their St. Augustine lawn with the collected rainwater. They have approximately 850 sq. ft. of lawn. A 1000 sq. ft. St. Augustine lawn uses approximately one inch or 560 gallons of water per week. About 9000 gallons of water will be needed during the 16 weeks of the summer months for 1000 sq. ft. of lawn. During a one inch rain, a 1000 sq. ft. St. Augustine lawn will receive approximately 550 gallons of water. The 1000 sq. ft. lawn will receive about 5000 gallons of water from the average 10 inches of summer rainfall. Thus, an additional 4000 gallons of water should be provided by collected rainfall for this lawn.

Size of lawn (sq. ft.) ÷ 1000 sq. ft. X 4000 gallons = gallons of supplemental water

850 sq. ft. ÷ 1000 sq. ft. X 4000 gallons = 3400 gallons of supplemental water

The optimum tank size is 3,400 gallons.

PRICE ESTIMATE WORKSHEET

Use this worksheet to keep track of your price estimates.

Tank (s)

- Tank type (material*): fiberglass, polypropylene, concrete, stone, other _____
*UNLINED GALVANIZED METAL TANKS ARE NOT ELIGIBLE FOR THE REBATE.
- Tank size (in gallons) _____
- Tank dimensions (ft.) _____
- Cost of tank and delivery _____

First Flush Components “First flush” is a system of piping to collect debris before it enters the tank. Refer to “Rainwater Collection with Several Options” schematic drawing on the Water Conservation web site (www.waterwiseaustin.org) _____

Pad Construction

- Material*: gravel, sand, concrete
*Wooden, above ground platforms will not be approved.
- Site must be level.

Pump and Optional Float Level Switch

- Is a pump necessary? If yes, consider installing a float level switch to prolong the life of the pump.
- How far do you want to pump the water? _____ What horsepower do you need? _____

OPERATION AND MAINTENANCE

Operation Guide

Referring to your site plan and system drawing, describe in writing how the system will function. Include details such as type and size of collection (roof) surface; tank size, composition and location; piping and first flush details; pump type and location or other water distribution method. (You may attach separate sheets)

Maintenance Plan

Provide a detailed plan on how maintenance will be done, including scheduled bacteria control measures if spray irrigation is to be used. (You may attach separate sheets)

RAINWATER HARVESTING INCENTIVE APPLICATION FORM

Name (as it appears on water bill) _____

Physical Address: _____ Zip _____

Mailing address (if different) _____ Zip _____

Circle one: Residential Commercial

Contact person _____ Phone _____ Fax _____

Email address: _____

City of Austin Water Utility account number _____

If not Austin Water Utility customer, provide a copy of your water bill.

Construction start date _____ Estimated completion date _____

Application Packet Must Include All The Following:

- Site Plan ● System Drawing ● Operation Guide ● Maintenance Plan ● Application Form

Agreement

The goal of the rainwater harvesting incentive program is to provide demonstration sites that introduce the concept of on-site rainwater harvesting to Austin citizens. The undersigned participant understands and agrees that rebated systems must remain operational for five years, or the City is entitled to recover a prorated portion of the incentive. The applicant agrees to allow public access to the system if requested by Water Conservation Staff. Only residential and commercial customers of the Austin Water Utility (or customers whose supplier receives 100% of its water from the Utility) are eligible.

The City of Austin makes no claims as to the safety or reliability of installed equipment or resulting water. **The participant agrees that the water is to be for non-potable uses only.**

I agree to the terms of Rainwater Harvesting Incentive Program.

Signature* _____ Print name _____ Date _____
(Same as on water bill) (Same as on water bill)

Title _____ for company name* _____ Date _____

*If applicant is a company or nonprofit, owner or authorized officer must sign.

City of Austin Use Only--Rebate Calculation:

Tank Size (gallons) _____ X **.15** (cents) = Total \$ _____

Pump and switch _____ X **.5** (50 %) = _____ **up to \$ 100** _____

Pad Materials _____ X **.5** (50 %) = _____ **up to \$ 100** _____

1st Flush Parts _____ X **.5** (50 %) = _____ **up to \$ 35** _____

Total Rebate not to exceed \$ 500 **Total Rebate** _____