

How to Get a Cistern for Your Home



- Capturing rainwater is a smart and cost effective solution that can be done at home.
- Rainwater captured and stored in a cistern can offset irrigation needs – helping to conserve water.
- Redirecting rainwater and preventing it from going into the street helps to ensure it doesn't become polluted runoff.
- Cisterns are not a new technology and are used all over the world.



What is a cistern and how is it different from a rain barrel?

- ❑ Cisterns and rain barrels are both tanks that are used to store captured rainwater from a catchment area (like a roof).
- ❑ Smaller tanks are called rain barrels. The most common rain barrels store around 55 gallons of captured water, whereas larger tanks (called cisterns) are generally considered to store 200 gallons or more. The average home cistern stores 800 - 1500 gallons.
- ❑ Cisterns can be made of various materials such as metal, fiberglass, polyethylene (plastic), and poured concrete.
- ❑ Cisterns typically have a secure cover and can be above ground, partially buried or underground.

How big of a tank do I need?

- ❑ You will need to calculate the size of the catchment area (or the portion of the rooftop where water is being directed from) to determine the size of the tank needed.

- ❑ It is important to understand how the rainwater will be used to determine how much you need.
- ❑ Look at your rooftop to determine what part of the roof you will be collecting water from – this is your catchment area.
- ❑ Multiply the width by the length of the catchment area to get the square footage.
- ❑ For every 100 square feet of catchment area, you will be able to collect approximately 60 gallons of water for every inch of rainfall.

What should I look for when purchasing a cistern?

- ❑ Look for the following:
 - A reputable rain tank company
 - An easily removable lid for cleaning
 - Opaque and darker color tank (lighter and see-through materials will grow algae)
 - A first flush diverter to catch any pollution or sediment coming off of the roof
 - Quality brass fittings
 - Meets earthquake regulations

How do I install a cistern?

- ❑ Installations must be conducted by a qualified designer and installer for rainwater harvesting systems.
- ❑ The ARCSA (American Rainwater Catchment Systems Association) website includes a member search engine to find an accredited professional in your area. Go to: <http://www.arcsaresource.com/>
- ❑ Permits for installation are required depending on tank size and how the water will be used.

The City of Los Angeles is in need of trained professionals who are certified to do large tank installations. TreePeople is leading the way in hosting these workshops. If you are interested in becoming certified go to: http://www.arcsa.org/events/event_list.asp for a list of accredited professional workshops.

How much does a cistern cost?

- ❑ Large tanks range in cost depending on the size and system being used. Smaller tanks start at around \$300, whereas larger tanks can range up into the thousands of dollars.
- ❑ Costs for installing a cistern system depend on system capacity, how the water will be used, how the water is delivered to where it will be used (hose or underground pipes, gravity flow or discharge pump), and whether it is above or below ground.
- ❑ Rebates for cisterns are currently available. Go to http://socalwatersmart.com/?page_id=2973.

Where can I purchase a cistern?

- ❑ A variety of tank models exist. A comprehensive list of manufacturers can be found at the Rainwater Harvesting for Drylands and Beyond website at <http://bit.ly/1WFXPfA>.
- ❑ The tank installer you hire can help with finding the appropriate tank based on your property and how you plan to use the water.

What are the laws related to water capture?

- ❑ Residents are now encouraged to use rain water tanks to increase the supply of usable water.
- ❑ This new law was passed to help California reduce potable water demand at least 20 percent by 2020.
- ❑ Prior to the Rainwater Capture Act of 2012 residents could only collect rainwater if they received a permit.
- ❑ Every Los Angeles resident is now relieved from this permit requirement, allowing you to collect rainwater that falls on your property.

What if I can't afford a cistern and its installation?

- ❑ You can still make an impact by using rain barrels and sustainable landscape practices.
 - TreePeople offers a variety of How-tos, videos and other resources.
 - <https://www.treepeople.org/resources>



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