

## Rain Barrel Placement

Rain barrel systems must be placed in a location that will allow runoff traveling through a downspout to be captured by the system. However, the system can be camouflaged or hidden by shrubs, bushes, or an attractive enclosure built to "hide" the system from full view.



## Water Storage Tips

Concern about *West Nile virus* dictates that special precautions are taken to discourage mosquitoes from laying eggs on the water's surface when collecting and storing water in rain barrel systems .

- ◆ Keep rain barrels tightly covered.
- ◆ Place debris screens in the gutter or barrel lid to filter water before it enters the rain barrel.
- ◆ Clean gutters and downspouts frequently.
- ◆ Use collected rainwater within a few days so the water surface does not remain undisturbed for long periods.

Regularly check to see if larvae are present by using a white cup to skim the water from the surface of the rain barrel. Put the cup on a firm surface. Wait a few minutes for it to settle, then look for the small thin wiggling larvae. If larvae are present, the water should be treated immediately or the barrel should be drained and dried.

## Redirecting Runoff Water for Landscape Use

Rain water from gutters and downspouts can be redirected to landscaped areas by placing a joint at the bottom of the downspout. A perforated pipe can then be attached to direct the water away from the house into planted areas. Water from downspouts can also be channeled to plantings by installing a small concrete or plastic apron at the base of the downspout. Most driveways are designed to move water directly into the street; however, depending on how the driveway or large paved areas slope, it is possible to collect and redirect this water to a planed area such as a rain garden.



Pictures provided by NEMO/UCONN Cooperative Extension

### WATERSHED COALITION PARTNERS

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For Stormwater Information

visit [www.casperstormwater.com](http://www.casperstormwater.com) or [www.casperwy.gov](http://www.casperwy.gov)

Call the Stormwater Hotline: 307-235-8283

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## Water Harvesting

*Clean, free water for  
Your garden.*



## The Problem



No matter where in Natrona County you live, maintaining lawns, vegetable and flower gardens and landscaping is a challenge. This challenge has been compounded by years of drought conditions resulting in limited naturally occurring moisture, municipal water restrictions, the rising cost of purchasing water and, in some areas, poor water well performance.

Faced with these challenges, it is still possible to create and nurture the gardens and landscaping we enjoy by taking full advantage of the naturally occurring water on our property. And, you will be contributing in a positive way toward improving the water quality of our creeks, our drainages, and the North Platte River.

## The Solution

Water harvesting is simply collecting water and redirecting it or storing it for later use. The source of the water that can be harvested is rain, snow melt, and irrigation that normally runs off areas such as lawns, driveways, and roofs. The object is to capture this runoff and put it to good use.

*With only 1 inch of rain, approximately 420 gallons of water can be collected from a 1,000 sq. ft. runoff area (e.g. roof, patio, driveway).*

## COLLECTING WATER FOR LATER USE

An easy method of collecting water for later use is to use a traditional rain barrel placed under a downspout. A more elaborate system interconnects several barrels with plastic pipe to accommodate large runoff areas. The barrels can be connected using gravity flow.



*Place the downspout into the top of the first barrel and multiple barrels can be filled in this manner.*

*Remember to drill a small air hole in the top of the second (and subsequent) barrel(s) for air to escape as the water level rises.*

*An overflow must be placed at the top of the last barrel. This overflow can be a drip hose to shrubs and lawn or a half-inch pipe directed into a runoff area.*

*A ball valve and optional quick connect hose connection can be placed either between the tanks or at the side of one tank.*



Containers used to store your harvested water should be covered to retard evaporation and to prevent mosquitoes from breeding.

Organic gardeners can make “compost tea” in their rain barrels by suspending a cloth bag of compost in the barrel to use as fertilizer for flowering plants.

*Pictures, materials list, and instructions featured here provided by Kevin Knopik, City of Casper Traffic Supervisor.*

## Building A Rain Barrel System

Creating a single rain barrel or a system of multiple rain barrels is an easy weekend project. Some preplanning is recommended to determine the number of rain barrels required to accomplish your objectives. The square footage of your roof surface will determine how many barrels can be filled during a storm event. A rule of thumb is one 55 gallon barrel per 150 to 250 sq. ft. of roof surface.

### Materials required for a two barrel system:

- 2 plastic 55 gallon barrels
- 2-2inch PVC male adapters
- 2-2 inch street ninety elbows
- 1-2 inch tee
- 1-2 inch to three quarter reducer
- 4 feet of 2 inch PVC pipe
- PVC cement
- 1-three quarter inch male to female threaded ninety
- 2-three quarter inch by three inch plastic nipples
- 1-three quarter inch ball valve
- 1 quick disconnect for garden hose (optional)

### Building a two barrel system:

Most rain barrels will come with two bung holes. One hole will have standard threads and the other will be non-standard. Use the standard threads for the PVC male adapters. Then, install the ninety's and measure the length of PVC pipe required to join the two barrels. Glue the fittings together and then cut the middle of the pipe for the installation of the tee. After installing the tee, add the reducer, the three quarter inch ninety, nipples and ball valve. Mark and cut a hole in one barrel for the downspout. In the top of the second barrel drill a quarter inch hole for air to escape as the water level rises. This air hole can also serve as an overflow outlet when both barrels become full.