



NAPA RIVER WATERSHED RAIN BARREL/CISTERN REBATE APPLICATION FORM

THE NAPA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT (DISTRICT) is offering a rebate of the purchase price of rain barrels or cisterns in an effort to increase water conservation and reduce stormwater runoff. Residential property owners in the Napa River watershed may receive a 75% rebate for approved expenses up to \$2 per gallon of storage capacity and \$500 maximum per household. Commercial, Industrial and Institutional (CII) applicants may receive a 75% rebate for approved expenses up to \$2 per gallon and \$1,000 maximum. Rain barrels can be placed under a roof downspout to collect stormwater runoff that can be used for watering your garden. Funding for this rebate program comes from the State of California water bond measure, Proposition 84, administered by the California Department of Water Resources, and is subject to funding availability. If you have questions about the rebate program, please call 707-259-8600.

REQUIREMENTS:

- One rebate per household or business.
- Applicant must reside or be a CII in the Napa River Watershed. Renters must receive written consent from the property owner to participate in this program.
- Rebate valid only for barrels/cisterns that are a minimum 40 gallons in size.
- Applicant may receive a 75% rebate for approved expenses up to \$2.00 per gallon. \$500 maximum for residents, \$1,000 maximum for CII.
- California State sales tax will not be reimbursed by the rebate.
- Barrels/cisterns purchased or installed before January 1, 2013 are not eligible.
- If applicant builds their own rain barrel, they may receive a rebate for 75% of the cost of materials.
- Applicant labor may not be included in the rebate request.
- Application must be complete and original receipts and a picture of the installed barrel/cistern must be submitted to receive a rebate.
- Applicant, if selected for inspection, agrees to allow access to the premises in order to verify installation.
- Applicant must install mosquito screens and must ensure that potable water supplies are not contaminated.
- A backflow device may be required.
- Due to limited funding, this rebate can be withdrawn at any time without notice.
- Application must be submitted within 90 days of purchase. Applications will be processed on a first come, first served basis.
- Rebate checks will be mailed in 6-8 weeks after the Flood District receives all completed documentation.



Please mail the following items to the: **Napa County Flood District, 804 First Street, Napa, CA 94559**

COMPLETED APPLICATION

ORIGINAL RECEIPTS WITH PURCHASE PRICE CIRCLED

A PHOTO OF THE INSTALLED BARREL/CISTERN



NAPA RIVER WATERSHED RAIN BARREL/CISTERN REBATE APPLICATION FORM

CUSTOMER INFORMATION:

Customer Name _____

E-mail Address _____

Home Phone Number (*with area code*) _____

Mailing Address _____

City _____ State _____ Zip Code _____

Installation address (*if different from mailing address*) _____

City _____ State _____ Zip Code _____

Owner Renter (Please provide written consent from the property owner)

Residential (\$500 maximum rebate) Commercial, Industrial, Institutional (\$1,000 maximum rebate)

Applicant may receive a 75% rebate for approved expenses up to \$2.00 per gallon.

RAIN BARREL/CISTERN INFORMATION:

Rain Barrel/Cistern Brand _____ Date of Installation _____

Gallons of Water Storage per Barrel/Cistern _____ Number of Barrels/Cisterns Purchased _____

Store/Website of Purchase _____

Additional Components Purchased (screens, backflow preventer, etc.) _____

Total Purchase price _____ Total gallons Stored _____ Total rebate* (75% cost @max \$2.00/gallon) _____

Original Store Receipt **MUST** be provided. Sales tax & shipping will not be rebated.* **Max rebate: \$500 residential, \$1000 commercial.**

DISCLAIMER & SIGNATURE:

I certify that I have read, understand and agree to the terms and conditions of this rebate application and that the rain barrels have been installed. By signing this document, applicant holds District and its officers, agents, employees from any and all liability, claims, losses, damages or expenses for personal injury or property damage arising from the installation and use of the rain barrels.

Signature _____ Date _____

OFFICE USE ONLY:

Date of Inspection _____ Approved By _____ Date _____

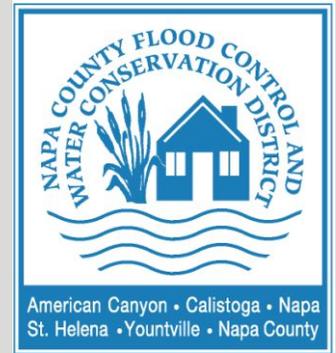
Total Purchase Price _____ Total rebate _____ Comments _____

RAIN BARRELS AND CISTERNS

Stormwater Control for Small Projects



Bay Area Stormwater Management Agencies Association



Daisy chained system of 205-gallon rain barrels
Courtesy of The City of Oakland

Rain barrels and cisterns can be installed to capture stormwater runoff from rooftops and store it for later use. They are low-cost systems that will allow you to supplement your water supply with a sustainable source and help preserve local watersheds by detaining rainfall.

Collected rainwater may be used for landscape irrigation. Subject to permitting requirements, harvested rainwater may be allowed for toilet flushing; contact municipal staff for more information. Capturing even a small amount of your roof runoff will have environmental benefits because it will reduce the quantity and speed of stormwater runoff flowing to local creeks.

Rain barrels typically store between 50 and 200 gallons. They require very little space and can be connected or "daisy chained" to increase total storage capacity.

Cisterns are larger storage containers that can store 200 to over 10,000 gallons. These come in many shapes, sizes, and materials, and can be installed underground to save space.

How Much Storage is Recommended?

The number of rain barrels recommended to capture runoff from a given roof (or other impervious area) is shown in the following table.

Are Rain Barrels or Cisterns Feasible for My Project?

Rain barrels and cisterns are appropriate for sites with the following characteristics:

- Roof areas that drain to downspouts.
- A level, firm surface is needed to support a rain barrel(s) or cistern to prevent shifting or falling over. A full 55-gallon rain barrel will weigh over 400 lbs.
- A landscaped area where the captured water can be used (and where it can be drained by gravity flow) should be located within a reasonable distance from the rain barrel(s).
- A landscaped area or safe path to the storm drain system that can handle overflow.

Roof or Impervious Area (sq. ft.)

Suggested Minimum Number of 55 Gallon Rain Barrels*

Up to 750	1-2
750 – 1,250	2-3
1,250 – 1,750	3-4
1,750 – 2,250**	4-5

* Or equivalent capture using larger rain barrels or a cistern.

** To harvest rainwater from an area greater than 2,250 sq. ft. install 1 additional rain barrel per each additional 500 sq. ft.

Components of a Rainwater Harvesting System

Roofing Materials



Wood shingle roof
Courtesy of Gutter Glove

Technically, any impervious surface can be used for harvesting rainwater; however, the surface materials will affect the quality of captured rainwater, which has implications for the recommended uses.

Although it is technically possible to harvest runoff from parking lots, patios, and walkways, it is more difficult since a subterranean cistern or a pump is usually needed to move the water into an above-ground rain barrel or cistern. Also, there are typically greater levels of debris and contaminants that must be filtered out of the runoff before it enters the storage system. Due to these complexities, it is more common to harvest rainwater from rooftops, which is the focus of this fact sheet.

When designing your system, consider the roofing material on the building.

- If you have asphalt or wooden shingles, use the harvested rainwater only for non-edible landscapes, unless the water is treated first. Petroleum or other chemicals from these roofing materials can leach into the rain water.
- Roofs with cement, clay, or metal surfaces are ideal for harvesting water for a wide variety of uses.

Gutters and Downspouts

Properly sized and maintained gutters and downspouts are essential to a rainwater harvesting system.

- Strategically locate any new downspouts in an area where the rain barrel or cistern will be most useful.
- Consider the height of the rain barrel and the first flush device. Existing downspouts may have to be shortened to make room for the rain barrel and first flush device.
- Install a fine mesh gutter guard on gutters to keep leaves and other debris from entering and clogging the gutters. This will reduce the need for cleaning gutters and the rain barrel or cistern.
- As needed, consult a professional roofer to aid in gutter and downspout installation.



This gutter is covered by a fine mesh gutter guard to keep debris out.
Courtesy of Gutter Glove

Components of a Rainwater Harvesting System

Rain Barrel and Cistern Accessories to Keep Water Clean



First flush and downspout diverter installation
Courtesy of The City of Oakland

Various accessories to rain barrels and cisterns help protect the quality of harvested water and reduce maintenance. These accessories include “first flush” diverters, filters, and screens.

Leaves, twigs, sediment, and animal waste are common in runoff, especially at the beginning of a storm (“first flush”). This debris can result in clogging and encourage bacterial growth. A first flush diverter helps remove debris and contaminants by directing the first few gallons of runoff from the roof to landscaping, away from the rain barrel or cistern.

The following tips will help you keep the water in your system clean.

- Install a first flush diverter directly under your downspout. You may have to cut the downspout to connect the first flush diverter above the rain barrel.
- Use the same diameter pipe for the first flush diverter, the downspout, and the connector to the rain barrel. Avoid changing diameters of pipes in order to keep the system from backing up.
- Design the first flush diverter to discharge the first flush to non-edible landscaping.
- Install mosquito-proof screens under the lid of the rain barrel and inside the overflow outlet.

Foundation and Overflow

Before installing a rain barrel or cistern, prepare the site so that the system will function safely.

- Find or create a level location near the downspout on which to place the rain barrel or cistern.
- A concrete or stone paver foundation may be appropriate for smaller rain barrels. A more substantial foundation will likely be required for large cisterns.
- Secure rain barrels and cisterns to your structure with metal strapping, or anchor to the foundation, to prevent tipping in an earthquake.
- Maintain clear access to the rain barrel outlets and cleaning access points.
- Design an overflow path, so that overflow from the rain barrel(s) will discharge safely to a landscaped area, or storm drain system.
- Where possible, direct overflow to a rain garden, swale, or other landscaped area to maximize retention of rainwater onsite.
- Direct the overflow away from the rain barrel, building foundation, and neighboring properties.
- Consult with the municipality to identify overflow locations.



Large unit installed at a single family residence.

Courtesy of Stephanie Morris

Design Checklist

When installing rain barrels and cisterns, consider the following criteria unless otherwise instructed by the municipality.

- ❑ Do not use flexible piping, to prevent mosquito breeding in water that may pool in flexible pipes. If irrigating edible landscapes, consider pipes that meet FDA food grade standards.
- ❑ When designing the overflow path, remember that in heavy storms rain barrels and cisterns *will* overflow. A 1,000-sq.-ft. roof will produce about 600 gallons of runoff during a storm that has produces a depth of 1 inch of rain.
- ❑ There shall be no direct connection of any rain barrel or cistern and/or rainwater collection piping to any potable water pipe system. Rainwater systems shall be completely separate from potable water piping systems.
- ❑ Place the bottom of the barrel at a higher elevation than the landscape, to use gravity flow.
- ❑ All rain barrels and cisterns should have a screen to ensure mosquitoes cannot enter.
- ❑ Allow overflow to drain to your landscape or a rain garden. Ensure that areas receiving overflow do not have standing water for more than 48-hours.
- ❑ The low water pressure from a small rain barrel will not operate in-ground sprinkler or low-volume devices. Consider using a soaker hose.
- ❑ If using a soaker hose, remove the pressure-reducing washer to increase the water flow.
- ❑ If the water is not needed for irrigation during the rainy season, consider releasing the water to a vegetated area between storms, so the barrels will be empty to catch rain from the next storm. This will help protect your watershed by reducing the quantity and speed of water entering local creeks during storms. Install a spigot and drip tape to allow the rain barrel or cistern to slowly drain between storms. You can store the water captured towards the end of the rainy season to irrigate your garden in the dry season.
- ❑ For more information, ask municipal staff to refer you to countywide stormwater guidance.

Operation and Maintenance

After installing your rain barrel or cistern, follow these tips for long-term safety and functionality.

- ❑ Regularly check the gutters and gutter guards to make sure debris is not entering the rainwater harvesting system.
- ❑ Inspect the screens on the rain barrel or cistern prior to the wet season to make sure debris is not collecting on the surface and that there are not holes allowing mosquitoes to enter the rain barrel. Inspect screens more frequently if there are trees that drop debris on the roof.
- ❑ Clean the inside of the rain barrel once a year (preferably at the end of the dry season when the rain barrel has been fully drained) to prevent buildup of debris. If debris cannot be removed by rinsing, use vinegar or another non-toxic cleaner. Use a large scrub brush on a long stick, and avoid actually entering the rain barrel. Drain washwater to landscaping.
- ❑ Clean out debris from cisterns once a year, preferably at the end of the dry season.



Daisy-chained system
Courtesy of Acterra

The City of Los Angeles and Geosyntec Consultants are acknowledged for providing text and formatting used in this fact sheet. The City of Oakland, Acterra, Gutter Glove, and Stephanie Morris are acknowledged for images used in the fact sheet.