

The Essentialist

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Bigfork's Essential Stuff Newsletter -- Bringing People Together
A Publication of Essential Stuff Project, Bigfork, Montana

Water Conservation, Rain Water & Gray Water

Rain Barrels (Sources)

- **Local:** None known
- **Oasis Design** offers a book on Water Storage, by Art Ludwig. Excerpts from book available on [website](http://www.oasisdesign.net/water/storage/) (www.oasisdesign.net/water/storage/) Includes ferro-cement rain-barrels.
- **Aquabarrel** (www.aquabarrel.com/) Barrels; kits; downspout diverters, filters and parts; mosquito control
- **Aaron's Rainbarrels** (www.ne-design.net/) includes recycled-plastic and wood barrels.
- **Real Goods** "Great American Rain Barrel"
(www.realgoods.com/product/home-outdoor/water-quality-conservation/conservation/rain+barrel+and+diverter.do)
- **Gardeners.com** has wide selection rain barrels (www.gardeners.com and search for 'rain barrel')
- **Make your own.** Fine Gardening magazine has instructional info on the web, adapted from Rebecca Chessin (<http://home.comcast.net/~leavesdance/rainbarrels/myproject.html>)
5-minute video: <http://www.taunton.com/finegardening/how-to/videos/build-a-rain-barrel.aspx>
Parts list: http://www.taunton.com/finegardening/media/rain_barrel_parts.pdf (under \$50; available at local hardware store): lidded, watertight container; hose-bib and other plumbing parts; sump kit; and window screen. Tools: drill and special bits, screw driver, and jig saw.

Cisterns (Sources)

- WILRAY, 406-622-3861, Fort Benton; 10-gauge galvanized steel cisterns, (from Bill Brenner)
- *Tank Town* (book) from Dripping Springs, Texas. 512-894-0861, or <https://rainwater.org/store/>. See also www.rainwatercollection.com/ for more info. Fiberglass water tanks won't work here because of winter freezing, but the basic information is still good.

Ceramic Water Dispenser: Montana Ace (755-9701) special order, 3 - 5 gallon capacity \$34.99.

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Rainwater Conservation & Harvesting Information

- **Rainwater Harvesting Systems for Montana** from MSU Extension:
(www.montana.edu/wwwpub/pubs/mt9707.html) Great info including cost estimates.
- **Oasis Design's Water Central:** www.oasisdesign.net/water/index.htm
- **Low Impact Development (LID) Urban Design Tools:** Design and specifications info.
(http://www.lid-stormwater.net/raincist_specs.htm).
- **Rain Barrel How-To:** from gardeners.com,
www.gardeners.com/Rain%20Barrel%20How-To/5497.default.pg.html
- **American Rainwater Catchment** (www.arcsa.org): Web page specific for Montana & the NW region: www.arcsa.org/northwest.html
- **Harvesting Rainwater** (a book) by Brad Lancaster. Lots of information on rain water and gray water harvesting. Focus is on Arizona, but ideas apply most everywhere.
(www.harvestingrainwater.com/)

Gardening with Rain & Gray Water

- **How to Build a Rain Garden:** simple and great for any yard, from gardeners.com,
www.gardeners.com/Build%20a%20Rain%20Garden/5712.default.pg.html
- **8 Steps to a Water-Wise Garden:** includes use of rain or gray water, from gardeners.com,
www.gardeners.com/Water-Wise%20Gardening/5047.default.pg.html

Gray Water (Grey Water) Information

Gray water: Generally considered as waste water from baths/showers, clothes washers and bathroom sinks). Water from kitchen sinks, dishwashers and toilets is considered "black water."

Use of Gray Water

- ✓ Landscape irrigation (non-edible landscape plants); conserves tap water, and benefits plants because it generally contains vital nutrients such as nitrogen and phosphorus. Apply directly to soil, not through a sprinkler (which would allow the water to touch the above-ground plant).
 - Do not use water that has washed diapers, or contains liquid fabric softener, or detergents containing softener.
 - Ideal for irrigating firebreaks because provides nutrients.
 - Gray water is alkaline; should not be used where acid soil is needed.
 - Do not use to water root crops that will be eaten (beets, carrots, etc.).
 - Use on well-established plants, not seedlings or young plants.
 - Disperse over large area; rotate with fresh water to avoid buildup of sodium salts.
- ✓ Toilet flushing
- ✓ Lagoons or ponds (with limitations)
- ✓ Washing clothes: with an automatic washer, wash water from a lightly soiled load, or rinse water, can be used to wash another load.

Online Gray Water Info:

- **New Mexico University** on Safe Use of Household Grey water; discusses untreated and treated grey water; filtration and disinfection. (http://cahe.nmsu.edu/pubs/_m/m-106.html)
- **Colorado State University** on gray water reuse, and rainwater harvesting. Addresses legal issues in Colorado, but has other good info that is not Colorado-specific. (www.ext.colostate.edu/pubs/natres/06702.html)
- **Greenbuilder.com**: A Sourcebook for Green and Sustainable Building. Gray water page: www.greenbuilder.com/sourcebook/Greywater.html. Info includes definition of gray water, considerations for irrigation use, commercial status, implementation issues, and resource list.