



# COOPERATIVE EXTENSION

## WATER RESOURCES

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THE UNIVERSITY OF ARIZONA - YAVAPAI COUNTY EXTENSION OFFICE

### It Makes No Cents to Conserve Water?

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#### Water Price Subsidies Remove Incentive to Conserve Water?

How many people would be willing to pay ten cents a gallon for high quality, home drinking water from a municipal or community provider? How many people are spending fifty-cents to a dollar per gallon of bottled water from a retail merchant? How many people are spending hundreds of dollars to filter, "soften" or "reverse-osmosis" their water?

Currently, if you are receiving your water from a public/community water provider in Yavapai County, you are probably paying from one-and-a-half to three-and-a-half tenths of a cent (**\$0.0015-\$0.0035**) per gallon of home drinking water. Compared to bottled water, what a REAL (maybe UNREAL) bargain for Arizona water consumers. At rates like that, why not waste a little water?...take a longer shower?...have a big yard? .... a pool? ... another golf course? **WHAT INCENTIVE DO YOU HAVE TO SAVE?**

**Current water prices don't reflect the actual cost of providing a gallon of water.** The reality is our water supplies (especially in the West) are heavily subsidized by government. If not by government directly, indirectly. Dams, pipelines, reservoirs, canals and plumbing, to provide water, is not cheap. New dams, pipelines, etc. are certainly going to be more expensive as we strive to find adequate, more distant, sources to fill them.

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#### Project "WET" Workshop Offered April 8 in Prescott

See Details Page 2

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#### PRIVATE WELL WATER TESTING , MAY 1-5

(More Information Inside - Page 2)



#### WHATABOUTWATERAND..... ..... Graywater?

Graywater is defined as wastewater that comes from laundry facilities, bathrooms sinks, tubs and showers. It does NOT include wastewater from kitchen sinks, dishwashers or toilets (blackwater).

The current use of graywater by water consumers is controversial, if not illegal, in many parts of the country. Some states (including Arizona) allow the use of gray water for watering or irrigating desert plants, trees or shrubs and/or as a way to conserve and reduce the use of potable drinking water. A savings, of up to 40%, is possible with a well planned system.

If you are willing to get a permit, spend the time and energy, and **not exceed** a cost of \$12,500 (maximum \$\$\$ for self-designed systems) this water conservation method may be for you.

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**WAWA -----Graywater (Continued)**

Costs will vary for each system designed. Gravity systems can be implemented for less than a thousand dollars. The addition of a holding tanks, pumps, etc can increase the costs to \$2500 or more. Expenses can be greatly reduced in new construction by having separate plumbing installed before pouring slabs or closing walls. Allowances can be made for the later addition of a graywater system if your not ready at this time.

Planning is the key. Determine the type of soils where you plan to locate your system (soil determines the potential capacity of your system). Simple calculations will enable you to determine your Soil Application Rate (SAR), Flow Calculations and Area Requirements.

Many consider current restrictions a deterrent for using graywater.

Contact the Yavapai County Environmental Services Office, the Arizona Department of Environmental Quality (ADEQ) or your local UA - Cooperative Extension Office for insight and more information regarding graywater use in your area.



**PRIVATE WELL WATER TESTING DURING NATIONAL DRINKING WATER WEEK**

The UA -Yavapai County Cooperative Extension Office is offering water testing for private well owners. Over 400 private well owners have already pre-registered to have their wells tested this spring. A limited number of kits are still available. Private well owners are urged to reserve a kit, immediately. The testing program is limited by funding.

A new, convenient and simple, do-it-yourself, test kit will be available this year. Water test parameters will include, pH, nitrates/nitrites, hardness, alkalinity, copper and iron.

During National Drinking Water Week, May 1 thru 5, test kits can be picked up at our Prescott or Cottonwood Offices between 8 AM and 5 PM daily ( We're closed for lunch between 12 and 1 PM). Test results will be returned by mail, reviewed and recommendations made.

This year's costs will remain "nearly free"; only \$5.00, which will cover mailing and handling. We **do require** well owners provide (at the time the kit is picked up) their mailing address, phone number, evidence of well ownership and legal location of the well ( a current county tax statement will satisfy/provide such information), **agree to return** a "report card" of their test results and a check made payable to: **University of Arizona**. All shared information is considered confidential and will not be released to other parties by the UA.

If you would like to reserve a kit for your well, contact your local Cooperative Extension Office at **520-445-6590** in the Prescott Area or **520-646-9113** in the Verde Valley.


**NEW UA - COOPERATIVE EXTENSION WEB PAGE**

Yavapai County Cooperative Extension Office has recently opened a WEB SITE. The site includes activities, events, resources and newsletters. You are sure to find this new addition a great way to find out what is going on. We are looking forward to providing more resources and information, in the near future.

Visit Us at:  
<http://ag.arizona.edu/yavapai>

**Quote of the Month:**

**"All People in Hell Want is A Glass of Water"**

from Anne Proulx,  
"Close Range...Wyoming Stories"  


**Project "WET" (Water Education for Teachers) Training Workshop Scheduled for April** 

*What is a Project WET Workshop? Mostly it's having fun and learning at the same time! The activities, developed and tested by teachers, are designed to develop critical thinking and build an understanding of concepts by experiential learning. **Color me a Watershed** has students examining land use variations in a watershed. **H<sub>2</sub>Olympics** has students understanding the physical and chemical properties of water in new ways. **Groundwater Flow Models** and the **Enviroscope Non-Point Source Pollution Model** will be used to supplement activities about Arizona groundwater and water quality. A **Project WET Teachers Manual**, **Free Curriculum and Resource Materials** are included in this no-cost workshop.*

*Come meet and learn with workshop leader ,Kerry Schwartz, the new Project "WET" Coordinator for the University of Arizona*

*For more information and the location, contact:*

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**CHECK THE CERTIFICATE ON THE BACK OF THIS NEWSLETTER**

Water Incentives(From Page 1)

Water in many of the historic provider rivers" and watersheds are deteriorating in quality and quantities. The City of Tucson has found CAP-provided water unacceptable in their system. Total Dissolved Solids (salts) have made lower reaches of most Arizona rivers virtually unusable.

The belief we can continue to seek and provide unlimited, quality water to ever-changing and increasing population centers is a dangerous, if not potentially disastrous, mind-set in planning for future water needs. Many large metropolitan areas have flat-rate water pricing; they provide non-metered water. **No Limits!** Effluent water (used/recycled) is almost being given away or not used to recharge diminishing aquifers. Water conservation just isn't a big priority of many private providers, communities and the public, in general. It is an old paradigm that will continue to plague water resources in Yavapai County, the State and Nation.

What is the actual cost of a gallon of water delivered to your home? Water is much like gasoline. We have become concerned why recent gas prices have started to push or exceed \$2.00 per gallon (\$3.00- \$4.00 per gallon in foreign countries for years???) . Most people don't understand subsidized gas pricing. Some consumers are beginning to exercise some conservation in their driving habits. Why? Because there is a FINANCIAL INCENTIVE. As our pocket book is affected, so does (should) our interest and motive to conserve a resource?



WE CAN'T SPARE A DROP

What can you and I do? There are several options. First, we need to re-focus on the **Real Cost** of water, establish a **Real Perspective** and appreciation of water resources. Second, we need to re-examine how we can use water more efficiently (it is estimated that 50-60% of wastewater is wasted). Third, we need to look at more creative options in water conservation, waste/used-water recycling, use-efficiency, and eliminating technologies that waste water, excessively. Fourth, reviewing and re-writing antiquated water resource laws and management practices that fail to address the current, world-wide, water crisis we ALL are facing.

These choices are yours!



**Mailing List Madness!**

I thought I had this covered last newsletter but found I hadn't. The University requires an annual affirmation you want to remain on the **Water Resources Newsletter** mailing list. Soooooo! If I don't hear from you soon, you will find yourself automatically dropped from future mailings.

I appreciate your words of support. We (Cooperative Extension) have used our nickels (printing & postage) for a year to keep you abreast of water resource issues (and the like) in Yavapai County and the rest of the world..... sort of!

A short "keep-me-on-the-list" note (on the back of this newsletter), sent in your stamped envelope, will allow us to continue to provide you with the "cheapest and bestest" water news subscription in the county ....not to mention "push-your-button" read'en.

A phone call to our offices (520-445-6590 or 520-646-9113) would be even easier and quicker. Oooooor!.....  
E-mail to: rdradden@ag.arizona.edu

One other option! The **Water Resources Newsletter** is also available on our new Website.

Thanks a Bunch!

**Water Education Resources**

Your Cooperative Extension Office can provide assistance and resources for any age level, individual or special interest group.

- ◆ Speakers and Displays
- ◆ Water and Natural Resource Information and Materials
- ◆ Classroom / Public Presentations
- ◆ Assistance in lesson planning and classroom activities
- ◆ Developing curricula and projects
- ◆ Project "WET" Workshops
- ◆ Teacher training
- ◆ Ground Water Model
- ◆ Septic System Model
- ◆ Field Trip Facilitation

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**Reader's Message**

Any "Food-for-thought"? We would like to include articles from YOU! Sharing information and ideas are the strengths of public awareness and education.

We encourage you, students, teachers, administrators and community leaders to contribute to this newsletter. Drop us a line!

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