



Watershed Management Group

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# Watershed Moment

## WMG Updates

The summer has been a time of transition as WMG has started two new programs, moved into office space, and seen changes in staff. One of our staff members, Elena Rontodi, is leaving WMG as she and her husband are moving to Oregon. We would like to thank Elena for her dedication over the last two years, and for being a pivotal force in creating our public demonstration sites on water harvesting. She also contributed significantly by designing and running our water harvesting program adapted for K-12 students.

### Water Quality Education

WMG is excited to begin a

new branch under our Greening Urban Watersheds program that focuses on urban water quality. The Arizona Department of Environmental Quality recently funded a two-year project which will create a visible neighborhood-scale



Greywater apprentice workshop. Photo source: Christy Bear

model for best management practices to reduce urban stormwater pollution. To learn more about this project, read the article below.

James MacAdam, our newest staff member,

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## A Neighborhood Model for Water Quality

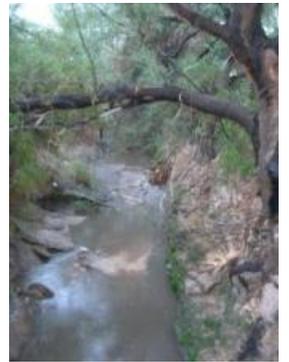
By James MacAdam,  
WMG Watershed Outreach Coordinator

Do you know your local wash? Also known as arroyos, washes are the usually dry, sandy channels that snake throughout the Southwest, carrying water only from stormwater runoff. Dry washes play an important ecological role in the desert, serving as natural points of groundwater recharge, providing pathways for wildlife, and hosting denser, more lush vegetation than is found in the surrounding landscape. In fact, though covering just 5% of the land area, dry washes are home to 90% of the bird life

in some areas of the Sonoran Desert (source: *A Natural History of the Sonoran Desert*, Arizona-Sonora Desert Museum Press).

In cities, washes—particularly the smaller ones—have often become neglected ecosystems.

Having lost much of their hydrologic function through dramatic changes in the



High School Wash

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### Important dates listed in this issue:

- 9.18:** “Conserve to Enhance” discussion and feedback session
- 9.23:** Greywater ordinance hearing
- 10.14:** Rainwater ordinance hearing
- 11.22:** WMG Fundraiser at Esperanza en Escalante

# Greywater/Water Harvesting Ordinances & Conservation Fund

By Katie Bolger, Aide to Tucson City Councilman Rodney Glassman

## NEW WATER HARVESTING & GREYWATER ORDINANCES NEED YOUR HELP!

Reducing outdoor water use is a key opportunity for communities to conserve water. In Tucson, some 40% of the potable water consumed by the city's commercial sector is used outside (source: Tucson Water), primarily to maintain landscaping. Both greywater use and rainwater harvesting have tremendous potential to reduce outdoor water use in both commercial and residential settings, while preserving attractive and functional landscapes.

To take advantage of these opportunities, an advisory group formed by Councilman Rodney Glassman and Tucson's City Council has developed ordinances for the use of commercial rainwater and residential greywater. The greywater ordinance would require all new residential construction be plumbed (made

ready) for subsequent installation of a greywater system. Retrofitting already-built homes with greywater systems can sometimes require expensive plumbing or even be cost-prohibitive. This ordinance would ensure that appropriate drains (shower, washer, bathroom sinks etc.) in newer homes are accessible for easy greywater system installation. The greywater ordinance is scheduled for a public hearing on **Tuesday, September 23, 2008, 5:30pm** in the Council Chamber on the east side first floor of 255 W Alameda.

**Public hearings need your support:**

**Greywater: 9/23/08**

**Rainwater: 10/14/08**

The rainwater ordinance will require all new commercial buildings in Tucson to use harvested rainwater as the primary irrigation source on outside landscaping. The Commercial Water Harvesting ordinance will be the first of its kind in the nation. It is scheduled for a public hearing and a vote by Mayor and Council on **Tuesday, October 14, 2008, 5:30pm** in the Council Chamber on the east side first floor of 255 W

*(Continued on page 5)*

## Linking Conservation Efforts With Riparian Restoration

Have you ever wondered how can we provide water to the environment, amidst growing demands for water in almost all water use sectors? The Water Resources Research Center (WRRC) invites all WMG volunteers to attend a presentation on a proposed "Conserve to Enhance" program to link individual conservation efforts with riparian restoration.

The proposed Conserve to Enhance mechanism, developed by the WRRC, would enable participants to donate the value of water they conserve to purchase water supplies for environmental enhancement projects. WRRC will share the background work for Conserve to Enhance and provide an opportunity for discussion and feedback. The event will be held at the **Sol Resnick Conference Room, Water Resources Research Center, 350 N. Campbell Ave. on Thursday, Sept. 25th at 6:30pm.**

WMG encourages you to attend this event, as we are currently seeking

funds to partner with WRRC and pilot this program with participants of our Water Harvesting Co-op program. We are eager to determine the level of interest with our volunteers and hear your input.

WMG would like to pilot a model of the Conserve to Enhance program that would include the following components:

- Provide subsidies for homeowners to install conservation features, like water harvesting
- Determine the market value of conserved water
- Develop partnerships with larger organizations that could match funds generated by homeowners to increase the value of conserved water
- Develop ways for low-income households to participate.

Please RSVP to Lisa Shippek at [lisa@watershedmg.org](mailto:lisa@watershedmg.org) if you plan on attending.



Rillito River flowing after winter rains in Tucson

# Our Sincere Thanks

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## Special Thanks To:

- ◇ Curt Bradley, for donating a Toyota pickup truck!
- ◇ Brooklyn Pizza for donating 5 pizzas for lunch for the apprenticeship program.
- ◇ Francine Shacter for catering lunch for one of the apprenticeship workshops.

## Corporate / Business Donations:

Central Arizona Project Charitable Contribution of \$1,000 for assisting low-income households with water harvesting.

## Individual Donations:

### Water Basin Level:

Eva Charbonneau  
Donna Lines

### Flowing River Level:

Kim and Jim Afinowich  
Bill and Robin Charles  
Rachel Crandell  
Emily Creigh  
Terese and Peter Ireland  
Ed Thompson

### Silver Raindrop Level:

Pierre Bondoumbou

Debra and Charles Cochran  
Sharon and Alex Dely  
Dustin Garrick  
Susan Lobo  
Amy McCoy and Brian Anderson

### Dewdrop Level:

Lisa C. and Paul C. Barker  
Rebekah Barlow  
Evan Canfield  
Evelyn and Thomas Cavanaugh  
Susan Danos  
Diane Doolittle  
Ethelyn Fennell  
Nkounkou Duclos & Agnes V.  
Kondamambou - Kikouta

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## Sustainable Living Tip

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### Tip # 6: Get Involved in Local Water Policy

Though water policy may seem overly complicated or distant from your daily life, getting involved can be an empowering and rewarding experience that benefits your whole community. When stepping into the world of water policy, follow these tips:

**1. Educate yourself:** Stay abreast of issues through the newspaper,

email newsletters from organizations working in water policy, and your own internet spelunking. You're more likely to have a letter to the editor published, or your voice heard at a city council meeting if you demonstrate even a little knowledge about the issues.

**2. Know who to talk to:** New advocates often get frustrated meeting with water company employees or government bureaucrats who don't have control over policy. Instead,

focus your attention on the policy-makers (generally, elected legislators) with personal visits, handwritten letters, calls, or emails (listed in order of effectiveness). Letters to the editor of your local newspaper can also be an effective way to sway policy in your community.

**3. Don't give up:** Unfortunately, not many people choose to engage in the public process in the U.S. Fortunately, that makes your voice that much more important!

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## Resource Management 101

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**Question:** What is a watershed partnership?

**Answer:** A watershed partnership is a relationship established between individuals, organizations, government agencies, and/or businesses to protect or improve conditions in a given watershed.

Such partnerships can take many forms, from a few ranchers and a county agricultural extension agent, to a group that includes multiple federal governments.

The most effective partnerships include representatives from all the stakeholders that are affected by the group's activities. Including many voices may take more time and effort in the beginning, but usually proves to be worth it as stakeholders can take ownership of the project, and late-stage objections to your project can be avoided.

Watershed partnerships can be created "top-down" (usually beginning with a governmental entity), "grassroots" (residents getting to-

gether), or somewhere in between. There may be an existing partnership in your area, or you may want to begin one. If you are starting a new watershed partnership, it can help to start with simple, achievable goals to build successes and attract others to your group. In an urban neighborhood, a great place to start is with a neighborhood, street-side basin digging and tree planting day.

Check with local government offices, neighborhood programs, and nonprofits to find more resources.

# A Neighborhood Model continued...

(Continued from page 1)

landscape, they also become “sinks” for pollutants like trash, pet waste, auto oil, yard fertilizers and chemicals, and sediment that are swept in to them by storm water runoff. Since these types of pollutants don’t come from any one source (like a factory), they are called “non-point source” (NPS) pollutants. Historically, flood and mosquito control policies have often relegated urban washes to the status of large drains, whose purpose is to deliver stormwater out of the city as quickly as possible.

High School Wash in Tucson’s Rincon Heights neighborhood is a classic example of just such a historically degraded wash. Thankfully, the neighborhood is also home to the Rincon Heights Neighborhood Association (RHNA), which leads a group of organized and active volunteers that has already taken action to address water quality issues, and which has procured government grants for revegetation and flood reduction in the area. The group’s interest, and the availability of such grants shows that policy is changing in favor of improving urban watershed conditions.

Beginning this September, WMG will partner with the RHNA to create a reproducible model for improving watershed conditions—and particularly, water quality—within an urban neighborhood. We’ll focus on three areas:

**1. Assess NPS pollution and plan Best Management Practices for High School Wash watershed (Fall 2008)** - We’ll work with neighborhood residents, community experts and City officials to assess sources of non-point source pollutants in the neighborhood, and identify priority areas for implementing Best Management Practices (BMPs) to reduce pollution. This step will include an educational volunteer cleanup of High School Wash in September 2008. The result will be a site plan to implement BMPs on 10 blocks in the Rincon Heights neighborhood.



**Best Management Practice: A curb cut allows street runoff to fill a newly dug basin (more vegetation will be planted)**

**2. Hold community workshops (Fall 2008-early Summer 2009)** - WMG will hold a series of hands-on workshops with neighborhood residents and community volunteers to increase awareness of NPS pollution and to implement BMPs along High School Wash. BMPs will include bioretention basins, berms, vegetated buffer strips, mulch, curb cuts, and vegetated chicanes.

**3. Take lessons learned to the larger community (Spring 2009 -Summer 2010)** - With the monsoon of 2009, we’ll evaluate the effectiveness of the BMPs we installed in the workshops. Taking

what we’ve learned from the practices and the project, WMG will use the “lessons learned” to conduct training and outreach workshops in Tucson for leaders from other watersheds, City officials, and local residents. We’ll also train community leaders from other watersheds in BMP design and implementation, and produce a summary publication for use by other citizens and neighborhood groups.



**Best Management Practice: Vegetated basin, one year after installation.**

*WMG’s program in Rincon Heights is supported by a grant from the Arizona Department of Environmental Quality.*

## WMG Updates (continued)

has joined WMG as the project manager on the neighborhood water quality project. He brings valuable teaching and outreach experience in the field of conservation. James has a degree in Environmental Studies, is a LEED-Accredited Professional, and is certified in Permaculture Design.

### Apprenticeship program

WMG's apprenticeship program is in full swing, with 10 Tucson residents training to receive certification as Water Harvesting Instructors. The 8 month training program is the most intensive training program offered in Tucson, and to our knowledge, the most comprehensive course available nationally. We plan to offer an apprenticeship program annually along with making it the premier national program by offering the most advanced training in water harvesting available. Currently the



Cistern construction apprentice workshop.

apprentices are being trained by 8 different local experts on the topics of cistern installation, greywater systems, passive rain-water harvesting land-

scaping, erosion control structures, and native gardening.

Our first apprenticeship program includes a collaboration with Toltecalli Academy – a high school in southern Tucson. As part of the training, apprentices will help plan and install water harvesting features on the school grounds, and then lead workshops with the students and homeowners in the surrounding neighborhoods. A priority of this apprenticeship was to train bilingual speakers to be able to lead workshops with Spanish speaking residents. The trainings are being interpreted into Spanish by participating apprentices, to practice and learn proper conservation vocabulary.

### Esperanza en Escalante

On Saturday, November 22<sup>nd</sup>, WMG will be having a fundraiser at one of our water harvesting demonstration sites, Esperanza en Escalante. Esperanza en Escalante is a non-profit organization that provides transitional housing for homeless veterans. The purpose of the event is to showcase the water harvesting work completed at Esperanza and to raise funds to enable further work at Esperanza and other low-income communities. The event will begin at 4pm and run until 7pm, and will include a site tour, barbeque, folk music, and guest speakers. Mark your calendars for this fun and informative event, and we encourage you to bring along a friend or colleague to introduce them to our organization and learn more about water harvesting. Please RSVP to Lisa Shipek at [lisa@watershedmg.org](mailto:lisa@watershedmg.org) if you'd like to attend.

## New Water Conservation Fund (continued)

Alameda.

Water harvesting and greywater take advantage of homes' and business' on-site water resources to reduce dependence on dwindling groundwater and Colorado River water supplies (via the Central Arizona Project Canal) that are money-, energy- and infrastructure-intensive. **Public support of both these initiatives is vital.** Please come to the Mayor and Council meetings on September 23, 2008 and October 14, 2008 to speak in support of these important new water ordinances.

### NEW WATER CONSERVATION FUND

For the first time in its history, Tucson Water has a dedicated fund for water conservation. Via a City Council-

approved ordinance, all Tucson Water customers are now charged a 3 cent "water conservation fee" per 100 cubic feet of water that is consumed." The average residential customer will see a monthly increase of about twelve cents. These funds will be used for water conservation programs throughout the city. In its first fiscal year, the fund is expected to bring in an estimated \$1.4 million (source: *Tucson Citizen* 8.30.08).

One of five pilot programs to be funded by the fee is a high efficiency toilet replacement program. With indispensable volunteer support from Jay Tripp and the Plumbers and Pipefitters Union Local 469, the city will replace old 5-gallon toilets with efficient 1.3-gallon models in the homes of eighty low-income residents.

**WATERSHED MANAGEMENT GROUP**

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Watershed Moment is a quarterly newsletter put together by writer/editors Lisa Shipek, and James MacAdam with assistance from intern Lauren Sanders. To subscribe visit us online at [www.watershedmg.org](http://www.watershedmg.org).

The mission of Watershed Management Group is to improve rural and urban livelihoods by integrating community development and conservation. We provide local residents and community groups with the knowledge and skills necessary to sustainably manage their natural resources.

[www.watershedmg.org](http://www.watershedmg.org)

## Support Watershed Management Group Today!

Watershed Management Group is a 501(c)3 not-for profit organization based in Tucson, Arizona. All donations are tax deductible.

**Suggested Individual Contribution Levels:**

- ◇ Dewdrop: \$15
- ◇ Silver Raindrop: \$50
- ◇ Flowing River: \$100
- ◇ River Basin: \$500
- ◇ International Watershed: \$1,000

**Suggested Business Contribution Levels:**

- ◇ Rillito River: \$500
- ◇ Santa Cruz River: \$1,000
- ◇ Gila River: \$5,000
- ◇ Colorado River: \$10,000

**WMG Wish List:**

- ◇ Ladder
- ◇ Garden tools (shovels, pick axes, hand trowels, etc.)
- ◇ Projector
- ◇ Laptop

You may also make your tax deductible donation online at [www.watershedmg.org](http://www.watershedmg.org) on our *Contributions* page.



**Greywater apprenticeship workshop.**

**Photo source: Christy Bear**