



WMG Updates

City of Tucson Ward III Councilwoman, Karen Uhlich, graciously opened WMG's water harvesting exposition held on Dec 1st. The **Ward III Council Office** is WMG's fourth demonstration site to showcase water harvesting techniques and native landscaping. The site objectives were to reduce landscape irrigation needs; reduce storm water runoff; and create an attractive outdoor meeting space with native plants.



Rain water harvesting basin in front of Ward III City Council Office, Tucson, AZ.

At the exposition, Lisa Shipek, WMG's Executive Director, presented **WMG's vision** to make Tucson, Arizona the world's leading model for water harvesting solutions. Proof of the effectiveness of WMG's work was given in an infor-

mative presentation by neighborhood activists, Chris Wilke and Carrie Sturm of Rincon Heights Neighborhood. After

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Conference Inspires International Dialogue and Call to Action on Environmental Flows

By Dustin Garrick

For a week in early September, 800 delegates from 57 countries convened in Brisbane, Queensland for the 2nd International Conference on Environmental Flows, an offshoot of the 10th annual Riversymposium. Experts from the natural and social sciences engaged in an exchange regarding the science and policy of environmental flows, a burgeoning field of water management that acknowledges freshwater ecosystems as essential to human and ecological well-being. The Brisbane Declaration defines environmental flows as, "the quantity,

timing, and quality of water flows required to sustain freshwater and estuarine ecosystems and the human livelihoods and well-being that depend on these ecosystems." (Brisbane 2007).

The conference culminated with a formal pronouncement – **the Brisbane Declaration** – that crystallized key findings and asserted a sobering message about the "alarming rates" of degradation and impairment to freshwater ecosystems. Rates of degradation have become increasingly urgent given the potential for irreversible impacts to ecosys-

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Need A Holiday Gift Idea?

Give the gift of environmental conservation by donating to WMG in honor of friends, family, or co-workers. If you send in a gift donation by December 20th, WMG will send a special holiday gift certificate to the recipient of your choice. For more information, see the contributions page on our website.

WMG Updates (continued)...

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attending a simple demonstration workshop by WMG, the neighborhood group transformed their ordinary tree planting project into a sustainability model for other neighbors. Plants were integrated with rainwater catchment basins, artistically sculpted with rocks.

Elena Rotondi, WMG Community Outreach Associate, is heading up the **School Yard Water Education Program**. Two Tucson schools, Miles Exploratory Learning Center and Rivera Elementary School, have been selected to participate in

the pilot project. Elena will work closely with teachers from both schools to develop hands-on water harvesting and gardening activities for students in 3rd—8th grade.

WMG is preparing to launch its new **Water Harvesting Co-op program**, to assist homeowners with the implementation of rainwater and greywater harvesting strategies. A homeowner becomes eligible to host a workshop at their own residence after assisting at two prior workshops. The co-op program's objective is to provide homeowners with an affordable and educational means to implement water harvest-

ing practices.

WMG wishes the best to board member **Sowmya Somnath** as she **embarks for India**. Sowmya will be participating in a 1-year Indiacorps service program to lead a water sanitation program in rural Southern India.



Elena Rotondi giving tour of the water harvesting features at Ward III Council Office.

Sustainable Living Tip

Tip # 4: Be prepared for drought

Recent news of droughts in various regions of the U.S. have many residents asking what they can do to cope with current and future water shortages. Drought may affect individual residents through mandatory water restrictions, and outdoor water uses are often the first uses to be restricted. You can prepare your-

self for droughts (and water restrictions) by implementing conservation techniques and tapping into other sources of water such as rainwater and greywater. Installing a rainwater cistern allows you to have stored water to use in dry periods. Utilizing greywater, like laundry water, to water your outdoor landscape, reduces the amount of mu-

nicipal or well water you use. In addition, choose native plants for your landscape that can tolerate natural climate variations like drought.



Rainwater harvesting cistern used to store water runoff from roof.

Resource Management 101

Question: How is a 'drought' defined?

Answer: Drought is a normal re-occurring climate cycle in almost every region. A drought is most commonly defined as an extended period of below normal rainfall. The characteristics of a drought vary widely from region to region

in terms of length, severity, variability, frequency, etc.

Droughts can last from one season to multiple decades. There can even be wet years within a drought period. For example, there could be 2 years below average rainfall, then one year above average, then several more years with below average rainfall. As drought is a normal cli-

mate condition, we should expect drought to happen periodically. The reoccurring pattern of drought requires proper long-term planning and resource management.

Visit the National Drought Mitigation Center's website, located at: <http://www.drought.unl.edu/whatis/what.htm> for more information.

Our Sincere Thanks

A Special Thanks To:

- ◇ Jason McHolm with Southern Arizona Raingutters for his volunteered technical assistance with the cistern construction at our Ward III demonstration site.
- ◇ Karen Uhlich and Holly Lachowicz for hosting WMG's water harvesting open house at Ward III.

Thanks to the following individuals who have generously donated to WMG:

River Basin Level:

Kim Afinowich
Donna Lines

Flowing River Level:

Marguerite Fisher
Diana and David Freshwater
Esther Kim and Todd Shipman
Holly Lachowicz
Ed Thompson

Silver Raindrop Level:

Rachel and Dwight Crandell
Emily Creigh
Patricia DeWitt
Lynn and Gregory Helseth

Dewdrop Level:

Diane Doolittle
Sara Habhab
Lillian Holten
Amy McCoy
Martha Retallick
Richard Roati
Terry Sheridan
Susan Willis

The Brisbane Declaration (continued)...

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tem resiliency as a result of climate change.

The Declaration put forth a series of recommendations to governments, community organizations, and the private sector to take immediate action on the following:

- Estimate environmental flow needs everywhere.
- Integrate environmental flow management into every aspect of land and water management.
- Integrate water quality management to reduce the need for flows to dilute wastewater.
- Implement and enforce environmental flow standards.
- Identify and conserve a global network of free-flowing rivers.
- Build capacity to train experts to assess environmental flow needs and empower local communities to make water management decisions relating to environmental flows.

Environmental flows describe the quantity, timing, and quality of water flows required to sustain freshwater and estuarine ecosystems and the human livelihoods and well-being that depend on these ecosystems. (2007 Brisbane Declaration)

To see the full recommendations visit:
www.riversymposium.com.

A Local Response: Harvesting the Flow.

Watershed Management Group's efforts to conserve water, promote sustainable watershed management, and

enhance quality of life through community-based water harvesting are aimed at addressing many of the imperatives set forth in the Brisbane Declaration. A diverse array of communities and regions are beginning to "remember the rain" by reviving the water harvesting practices pioneered during ancient civilizations and

adapting them to contemporary water management challenges. Water harvesting has factored centrally in the implementation of environmental flows at multiple scales, ranging from households to watersheds. WMG's Greening Urban Watersheds Program is nested within these broader global efforts to integrate

land and water management in a manner that preserves the goods and services generated by healthy freshwater ecosystems, including water quality, floodplain protection, biodiversity, and water supplies for drinking and food production.



For an excellent review of water harvesting, including its basic physical processes, history, and legal framework, consult: Troy L. Payne & Janet Neuman, Remembering Rain, 37 Environmental Law Review 105 (2007). (www.lclark.edu/org/envtl/objects/37-1_Neuman.pdf)



Watershed Management Group

P.O. Box 65953
Tucson, AZ
85728

Phone: 520-396-3266
E-mail: catlow@watershedmg.org

Watershed Moment is a quarterly newsletter written by Catlow Shipek and edited by Lisa Shipek. To subscribe visit us online and select the "newsletter" tab or contact us.

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.

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 Contribution Levels:

- ◇ Dewdrop: \$15
- ◇ Silver Raindrop: \$50
- ◇ Flowing River: \$100
- ◇ River Basin: \$500
- ◇ International Watershed: \$1000

WMG Wish List

- ◇ 4 ft x 8 ft hauling trailer
- ◇ Ladder
- ◇ Garden tools (shovels, pick axes, hand trowels, etc.)
- ◇ Office space or storage space in central Tucson area
- ◇ Projector and projector screen
- ◇ Laptop computer

You may also make your tax deductible donation online at www.watershedmg.org on our Contributions page.



Taking a well-deserved break from the summer heat at Ward III Council Office. From left to right: WMG intern Emily Creigh, WMG staff Lisa Shipek and Elena Rotondi, and Ward III council aide Holly Lachowicz.