



Dear Readers,

In this issue, we reflect on the impact of our work over the last year. Included are two testimonials from community members we've worked with through our Neighborhood Stormwater program and Water Harvesting Co-op program. Other articles include an overview of WMG's 3rd Annual Earth Day Event, a wrap-up on the WMG Apprenticeship program; and announcement of our first cistern design contest.

We also have a special focus on WMG's budding international projects,

including updates from work in Mali and India.

As you read about the accomplishments of WMG over the last year and the lives we've impacted, please consider making a donation to ensure WMG can continue our essential work. WMG's goal is to raise \$60,000 between now and October 1st to support our regular programs. To increase your impact, consider becoming a monthly donor. For more details on making a donation or becoming a monthly donor, please visit our website at: www.watershedmg.net/contribute

Volunteers install a "Pocket Park" to Celebrate Earth Day

By James MacAdam, WMG Program Manager

On April 25, WMG volunteers and residents of Tucson's Rincon Heights neighborhood joined together to install a natural "pocket park" on a neglected City-owned lot along High School Wash. Volunteers installed elegant water harvesting earthworks, planted native trees and shrubs, and built a straw bale wall at this site that hosts one of central Tucson's only recognized riparian areas.

The plan for the park emerged out of WMG's work with Rincon Heights neighbors to create a grassroots neighborhood model for improving stormwater quality by installing Best



Management Practices (BMPs) such as curb cuts and water harvesting basins. As the only public recreation area in the neighborhood, the park will provide shaded seating areas, demonstration of BMPs, educational signage, and a mural on the straw bale wall that depicts native

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Table with 2 columns: Article Title and Page Number. Includes items like 'Cistern Design Contest—Deadline Extended to Sept. 15' (page 2) and 'Update from the Field: Mali, West Africa' (page 6,7).

Cistern Design Contest: Design submission extended - Sept 15th

What would the ideal rainwater cistern look like in your backyard? A dramatic sculpture? A complement to our desert flora? A sound instrument played by the rain?

WMG asks participants to tap their artistic side and submit their best ideas for aesthetically pleasing rainwater cisterns. The winning vision will be announced in September and constructed by the group in the fall.

The contest invites everyone – artists, students, garden enthusiasts – to learn about rainwater harvesting and design their dream system. WMG has taught cistern installation in public workshops, emphasizing that a good cistern design is sturdy, lightfast, mosquito-proof, easy to maintain, and cheap to build. But it doesn't have to be boring!

The competition will run until September 15th. Details about the contest requirements are available at www.watershedmg.org.



Neighbors Link with WMG to Create Stormwater Model

By Chris Wilke and Carrie Sturm, Rincon Heights Neighborhood Activists

When Rincon Heights met Lisa Shipek from WMG, the timing couldn't have been better. We had begun neighborhood-wide landscaping, and it was quickly evident that we needed to add water harvesting features. We had a fair amount of plant survival, but growth was slow and smaller plants were struggling. Without time for a formal workshop, Lisa made time to give us a hands on demonstration of installing basins and berms to retain storm water in our planting areas. In the spring of 2007, Rincon Heights held several workshops which added native plants to barren neighborhood areas utilizing the water harvesting knowledge that Lisa so generously shared with us. Then came the monsoon summer rains and a year later the difference was incredible. Our trees grew bigger, more shrubs survived and thrived, and wildflowers filled the basins.

A partnership between WMG and Rincon Heights was blooming as well. As time went on, Rincon Heights gave presentations about our projects at various WMG events. Jared Buono, WMG co-founder, continued to assist us in implementing improved design features, stabilize erosion problems, and improve plantings from prior years that lacked water harvesting. Through the combined efforts

of our neighborhood and WMG, Rincon Heights was fast becoming a model neighborhood for community building and rainwater harvesting. In 2008, WMG acquired a grant from Arizona Department of Environmental Quality to provide educational outreach activities focused on the benefits of implementing street-side water harvesting practices to reduce stormwater pollutants. James MacAdam, WMG project manager, worked closely with the Rincon Heights Neighborhood to hold public workshops and trainings while implementing stormwater best management practices in the right-of-ways. Recently the University of Arizona (UA) joined the neighborhood efforts seeking collaboration with neighbors and WMG. The UA emulated the stormwater improvement practices being taught by WMG in the landscaping of their own neighborhood properties.

Rincon Heights is very thankful for all of the time and effort that WMG has put into our neighborhood. Their involvement has not only greatly enhanced the quality of life for our residents, but also improved the environment and given us an opportunity to give back to the Tucson community. Residents of many other neighborhoods have learned hands on practices at WMG workshops in our neighborhood. These projects have brought our neighbors closer together and have connected us to other neighborhoods throughout Tucson.

Graduates of WMG's Apprenticeship Program Are a Wealth of Knowledge for the Tucson Community

Ten Tucsonans recently completed WMG's Water Harvesting Apprenticeship program. This was a year-long program that included 60 hours of hands-on instruction in the design and implementation of a variety of water harvesting practices.

In addition to the hands-on instruction, many of the apprentices also trained in workshop planning and instruction which consisted of leading 4 WMG workshops in coordination with WMG staff— another 60 hours of training! The graduates of the program now carry a high level of training to benefit the Tucson

community in advancing water harvesting projects for residents, schools, and businesses.

The graduates include:

- Blue Baldwin—certified instructor
- Matthew Bertrand—certified instructor
- Chai Blair-Stahn—certified instructor
- Joan Hall
- James MacAdam
- Omar Ore-Giron
- Irene Radillo
- Diana Rhoades— certified instructor
- Paul Whitby— certified instructor
- Julie Zapolski

The apprenticeship program laid the groundwork for WMG's current Water Harvesting Certification program.

WMG 2009 Water Harvesting Certification Program Completed

Local and regional participants in WMG's newly developed Certification program have just finished the intensive trainings. A summary of the program and the individuals who successfully completed the respective courses will be announced in the Fall newsletter.

Our Sincere Thanks

A Special Thanks To:

- Jan Howard and assistants with Strong Point for their pro bono work with WMG's Board of Directors
- Lauren Bianchi for helping organize WMG's Earth Day event
- Bands Mata Leão and Dambe Student Drum Ensemble, for keeping volunteers motivated with music at Earth Day
- Rocky Martinez for volunteering his time to paint the Rincon Heights Pocket Park mural
- Trees for Tucson for partnering with WMG to provide native plants for stormwater projects in Rincon Heights Neighborhood
- Toltecalli Academy for hosting the Co-op Monsoon Party, Mitzi Cowell and The Earthlingz for their musical performances, and Laura Mays and Gail Ryser for planning
- LeeAnn Marrero for donating a

large shade tent

- Ace Hardware (745 E 9th St.) and Bently's Coffee Shop for donating gift certificates for survey raffle prizes

Individual Donations:

International Watershed
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River Basin Level

Andrea Martin

Flowing River Level:
Kim Afinowich
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Ronald and Martha Kuykendall
Dudley and Merry Lewis
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Lisa and Catlow
Shipek
Ed Thompson

Silver Raindrop Level:

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Brian Anderson
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Ross Bryant
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Quiroga
Schauffert/Vogt
Joe Silins
Adam and Stephanie
Springer
Susan Willis

WMG Cistern Workshop Piques Neighbor's Interest

By Gail Ryser, Water Harvesting Co-op Member

I hosted a cistern installation at my home in January and February of this year. It was an amazing process that began with a grant award through WMG's Water Harvesting Co-op. Next came planning meetings with Lincoln Perino (WMG Workshop Instructor), a truck load of supplies, and a whole flock of people arriving at my house on a cold, rainy January morning, smiling and ready to work!

I moved to Tucson in January 2008, and at that time I knew I wanted to xeriscape and develop water harvesting systems on my property. Although I had great potential for installing a cistern system to store rainwater, the commercial installation quotes were cost prohibitive.

At a neighborhood meeting, a city council aide mentioned WMG and its Water Harvesting Co-op program. I began attending workshops and demonstration site installations around town and was very impressed with WMG's mission and commitment to natural resource management at the grass roots level. *I was hooked!*

I love the co-op model, and in particular the execution of this model with water harvesting. It is a wonderful opportunity for people with a variety of skills and knowledge to come together and share in an educational (and fun) environment, working neighbor with neighbor, and sharing skills, knowledge, tools, and experience. This program is what allowed me to install cisterns on my property, develop my catchment basins, and advance my vision in a matter of a few short weeks! Did I mention the incredible food that usually accompanies each workshop?

The impact in my community has been more far-reaching than I had anticipated. At my installation, many folks arrived on bikes (tools in hand) while the street filled with cars. Of course, this piqued the interest of the surrounding neighbors, as well as many folks who drove by. Several neighbors stopped over to ask what was going on; others poked their heads over the fences to ask similar questions. Some came by and hung out for a long time, just watching the progress. Some, having heard rumors, came by weeks later, wanting to know what I was doing.

I have hosted several informal tours of my sight, passing out WMG brochures and Co-op applications. Several neighbors have expressed an interest in having an assessment on their property. It was a great opportunity to spread the word about the needs of our water steward-

ship, the work of WMG, and water harvesting principles in general and why it makes sense in Tucson.

My neighborhood is also organizing around a community garden project, and many people, having seen my project, are now thinking about how we can incorporate these principles in our garden project. This has been a wonderful seed in our barrio.

Thank you WMG for sharing your resources with me.

“Pocket Park” (continued)

(Continued from page 1)

wildlife and a child planting a tree in a water harvesting basin.

The event, which capped off six months of workshops installing BMPs in the neighborhood, included live music from two local bands, catered lunch, and presentations on local wildlife and native food plants by Junior Docents from the Arizona-Sonora Desert Museum.

Neighbors enjoyed the block party atmosphere, as we closed an adjacent street and took our festivities out onto the tarmac.

WMG's project in Rincon Heights is made possible by a grant from the Arizona Department of Environmental Quality.



Rocky Martinez contributed his artistic talents to beautify the park.

Update from the Field: India

By Sowmya Somnath

Watershed Management Group (WMG) has expanded to offer our hands-on approach to community development worldwide. From West Africa to South Asia we are developing solutions to today's most pressing social and environmental challenges-- climate change, poverty, food security, and sanitation. Jared Buono, current WMG board member and Sowmya Somnath, former WMG board member, have moved to India to set up WMG's India Office. They are currently on a program assessment tour where they are visiting other organizations and projects. Below is an update from Sowmya.

India has a long history of development interventions, and there is a large and active non-governmental group (NGO) network here. There are reportedly 2 million registered NGOs in India. This may lead one to wonder why India would need another NGO. With increases in population, rapid economic growth, industrialization, urbanization, and intensive agriculture, there is intense pressure on ecosystems to support people in a sustainable manner. Many areas experience severe water shortages, erosion, deforestation, and air and water pollution. In the face of challenges like these, there is definitely a need for a group like WMG. Before WMG gets underway with our programs in India, we wanted to learn more about what work is already being done by other NGOs.

Who are they? What are they doing? What key features do effective NGOs in different sectors share? What approaches that worked for WMG previously in the US and Africa may not necessarily work here? And vice versa. Is



Sowmya visits with school children in Mehwar, Haryana

there a geographical area that is underserved that could benefit from WMG's skill sets? What should the organizational structure of WMG look like in India? And what can we learn here both from a technical and developmental perspective that we can bring back to improve programs in Tucson? These are some of the questions that Jared and I took with us when we set out in June on a program assessment tour across India.

We have been meeting with groups that work in the watershed management sector and the water and sanitation sector, as these are the skill sets that we hope to apply to serve communities here. But we are also meeting with NGOs and community groups that do effective and innovative work in other sectors to better understand development approaches that work, look for potential partners, and learn about different philosophies of service.

So far, we've been to parts of Tamil Nadu, Karnataka, Gujarat, Rajasthan, Haryana and the capital, New Delhi. Groups we've met include: small mom and pop NGOs that immerse themselves fully into the local communities they work in; 500 employee NGOs with large donor funding; and big picture policy folks (UNDP, FAO, etc) that are able to help us understand some of India's issues at a national level. Our journey has been diverse both in terms of geography, culture, and scale and perspective.

India is a hotbed of development activity, and just as the problems here are multifaceted, so too are the solutions. We're inspired by the different approaches we see.

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A "barefoot solar engineer" explains a parabolic solar cooker in Tilonia, Rajasthan

Update from the Field: Mali, West Africa

By Catlow Shipek, WMG Watershed Specialist

Amanda and I make our way across the rocky sandstone escarpment to our next official interview. The 105°F heat begins to break, and a light breeze drifts across the village and mixes into the rhythm of women pounding millet and sorghum into flour.

We have been sent by The University of Arizona Engineers Without Borders (EWB-UA) chapter to conduct a week-long community assessment in Mandoli, a small agricultural community located along the remote Bandiagara Escarpment in Mali. Mali is mostly located in the semi-arid Sahel desert between the arid Saharan desert to the north and more humid climates to the south. Mali is a diverse country consisting of dozens of ethnicities, has world-renowned musical artists, and is considered one of the poorest countries in the world.

Earlier in the week, Amanda and I had travelled three days by plane and bus to arrive in the village. We are staying with a Peace Corps Volunteer residing in the village, whose small rock/mud hut has one of only two toilets that exist in the village.

Our interviews are complicated by the fact that village members predominantly speak a dialect of Dogon, and only a handful speak the regional language Bambara or know French. By a stroke of fate, the only member of Mandoli who could speak English, is visiting the community on break from work in a larger city. Our translator is the only member of Mandoli's history to attend and graduate college.

The community had requested assistance from EWB-UA



Catlow conducting interview with community leaders



Above: Bandiagara Escarpment in the dry season

Below: Bandiagara Escarpment in the wet season

to improve their dire water supply issues which are most evident these final months of the 9-month dry season. At the moment, the water supply is at its lowest with the rains still a month away. Men, women, and children all work together to supply enough water to their families and herding animals. This region typically receives all their rain (on average 500mm or 20inches) from June to September. Amazingly, almost all the food resources for the year are grown during this short growing season utilizing every square meter of soil available.

Past aid projects have installed a number of open wells drilled deep into the sandstone bedrock. Growing and shifting populations strain the existing water supply during the dry season when demand exceeds the recharge rate. Several villages within the community travel up to 3km twice a day to obtain water for all their household and livestock needs.

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Update from the Field: Mali (continued)

(Continued from page 6)

Amanda and I meet with groups of men and women to assess issues regarding water usage, water quality, sanitation, health, income, family characteristics, community structures, and more. The information we collect will be presented to the larger EWB-UA team back in Tucson. From this information we will work together with the community of Mandoli to develop a strategic plan to help them resolve their water supply issues. One solution may be utilizing rooftop rainwater harvesting practices. Some members of the community already informally practice rooftop catchment using buckets to collect runoff from their mud roofs.

The development of a catchment and storage system applicable to this region presents several challenges. First, long-term storage requires careful protection and management of the collected rainwater. Second, the cost of the materials must be affordable to a community consisting primarily of subsistence farmers with limited monetary income.

Our day of interviews ends with a walk back to our lodging stopping to give the evening greeting to each passerby. Awaiting us is a steaming bowl of rice and onion sauce to be shared in traditional communal fashion.



Mandoli women and children gather indoors for assessment interview

The EWB-UA team is currently moving forward with planning, technical development, and fundraising for the next stage of the project. Financial donations assist the all-volunteer team in ensuring everyone in Mandoli has access to safe, clean drinking water. Catlow Shipek is serving as one of the professional mentors for EWB-UA's student chapter. Please visit www.ewb-ua.org and www.watershedmg.blogspot.com for more information and updates.

Update from the Field: India (continued)

Highlights of the NGOs we've visited include:

- An NGO that presented its mission and values through a puppet show and believes in empowerment within its own organization – almost all of its programs are run by local villagers with no formal education. (www.barefootcollege.org)
- A school in the nation's capital that flips the traditional education system on its head. By letting kids teach each other and set agendas for what they want to learn, it's created a place of learning in the truest sense of the word. (www.manzil.in)

- A rural hospital that serves a tribal population and measures its progress through the lens of redefining power relationships with a historically mistreated population. (www.ashwini.org)

Over the next few months Jared and Sowmya will be posting news, stories, and photos from their tour. The next phase of their trip is heading north into the Himalayas. We invite you to follow their journey, and watch WMG grow at watershedmg.blogspot.com.

Support Watershed Management Group Today!

Increase Your Impact by Becoming a Monthly Donor!

Become a regular WMG supporter by becoming a monthly donor! Monthly donations allow donors to have a larger impact, through smaller, recurring contributions. At the same time, monthly donations provide WMG with a dependable source of income to support our programs. Please contact the Executive Director, Lisa Shipek, if you would like to become a monthly donor by email at

lisa@watershedmg.org or by phone at 520-396-3266. We can set up a monthly email reminder, and discuss the different payment options of check, PayPal, or through your bank.



WMG's Co-op members and community group Tierra y Libertad Organization reflect on their work after creating a stormwater basin in an alleyway to grow bird habitat. Two WMG apprentices led this workshop.

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

Suggested Individual Contribution Levels:

- ◇ Dewdrop: \$25
- ◇ 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

- ◇ Video Camera
- ◇ Laptop Computer
- ◇ Garden tools (shovels, pick axes, hand trowels, etc.)
- ◇ Locking file cabinet

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

Watershed Moment is a quarterly newsletter written by WMG staff and guest contributors, with final editing by Lisa Shipek. If you are interested in submitting a story to The Watershed Moment, please contact Lisa at lisa@watershedmg.org or at 520-396-3266.

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.