

Annual Report 2010

Watershed Management Group

Oct. 1, 2009 - Sept. 30, 2010

2010 Annual Report Contents

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WMG's Mission

Watershed Management Group is a 501(c)3 nonprofit organization that develops community-based solutions to ensure the long-term prosperity of people and health of the environment. We provide people with the knowledge, skills, and resources for sustainable livelihoods.

Board of Directors

Joe Silins (Chair), Ross Bryant (Treasurer), Andrea Martin (Secretary), Pierre Bondoumbou, Chris Brooks, Ilene Grossman, Felipe Ip, Henry Jacobson, Julie Jonsson, Torey Ligon, Gail Ryser

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Susan Banes, Evan Canfield, Dustin Garrick, Young-Jin Kim, Francine Shacter

Report Contributors

Editing and layout: Lisa Shipek and Lindsay Ignatowski

Contributors: Catlow Shipek, James MacAdam, Jared Buono, Lisa Shipek, and Lindsay Ignatowski

Letter from the Executive Director



From Tucson to Timbuktu, Watershed Management Group (WMG) is helping people build skills and knowledge and implement action-based projects to improve their communities.

In 2010, WMG trained 60 professionals, educators, and activists through our 10-day Water Harvesting Certification program. Graduates are applying their training in communities in the U.S., Canada, Mexico, and Africa. Our Water Harvesting Certification continues to set the standard as the most comprehensive training of its type in the nation, with a distinctive focus on integrated design and water harvesting principles that can be applied anywhere in the world.

Last year we built on our solid reputation as technical educators in water harvesting to provide resources and training opportunities in green streets design. We published a manual, "Green Infrastructure for Southwestern Neighborhoods," that included six green infrastructure design standards approved by the City of Tucson. The manual is offered for free through our website and was downloaded 1,000 times in the first three months it was posted. The manual helps break down barriers between municipal professionals and neighborhood residents to provide a base knowledge and practical designs as the basis for collaborative solutions.

Thanks to funding from both the state and federal government, WMG's Green Streets-Green Neighborhoods program expanded to work with six new neighborhoods in 2010. We were one of just 14 groups from a pool of 300 applicants to receive funding through a national grant from the U.S. Environmental Protection Agency.

While grant funding has been crucial to our Green Streets program, donations have been the primary funding source of programs like Conserve to Enhance and international work in Africa and India.

WMG donors gave generously in 2010; one loyal supporter provided a match to our summer fundraising campaign, enabling us to raise five times more than we have in any previous campaign!

WMG donors provided the sole funding source for our water and sanitation project in Deou, Burkina Faso, Africa, where WMG staff Jared Buono and Sowmya Somnath spent six weeks working with rural villagers. One of their most successful ventures was introducing the Tippy Tap, a simple hand-washing device for areas without running water. This \$1 sanitation device significantly reduces childhood deaths due to diarrhea.

We are excited to see the impacts of our trainings, workshops, and educational resources ripple out into the communities of the people we touch.

Sincerely,

A handwritten signature in black ink that reads "Lisa Shipek". The signature is written in a cursive, flowing style.

Lisa Shipek
Executive Director

Greening Urban Watersheds

Linking backyards with watersheds & grassroots to policy

By Catlow Shipek
Sr. Program Manager

WMG's Greening Urban Watersheds (GUW) program started in 2006 in Tucson with a simple vision of reconnecting people with place to foster greener and more livable communities. Over these past four years, the program has created a vibrant community of trained volunteers and dozens of public demonstration sites. This has enabled communities to address issues of water scarcity, lack of fresh food, urban heat island effect, lack of community green space and wildlife habitat, and flooding and stormwater pollution.

The trained volunteers and demonstration sites have fed into a larger network of community-based conservation which is "trickling up" to impact the larger watershed and

policy development.

Lot-scale demonstrations promote community conservation

In the spring of 2010, WMG partnered with Habitat for Humanity Tucson to implement rain and greywater harvesting practices at several Habitat home build projects. WMG led workshops training Habitat for Humanity volunteers and project managers. These sites demonstrate passive rain water harvesting earthworks and low-cost greywater distribution practices in accordance with Tucson's new residential greywater stub out ordinance. Habitat for Humanity Tucson is now replicating these simple and affordable rain and greywater harvesting practices in other home builds.

To demonstrate sustainable rain-

Greening Urban Watersheds Programs

Water Harvesting Demonstration Sites – creating public models of green design.

Green Living Co-op – leading work parties for implementing green living practices.

Schoolyard Water Education – bringing rain gardens into the schoolyard through participatory educational practices.

Green Streets – Green Neighborhoods – creating livable spaces by transforming neighborhood streets utilizing stormwater.

Conserve to Enhance – connecting water conservation with local river restoration projects.



scapes at the commercial level, WMG transformed Tucson's Ward 2 Council office with a 2,800 gallon cistern, monumental earthwork features, and native plants to capture and utilize on-site rainwater. The features were constructed through workshops with volunteers and professional trainings through our Water Harvesting Certification and Advanced Watershed Technical Trainings. This public demonstration site provided a venue to build community awareness and advance green job training.

Standardizing green infrastructure empowers neighborhood residents

WMG's Green Streets – Green Neighborhoods program is transforming the character of Tucson's neighborhood streets through implementing green infrastructure demonstration sites and teaching neighborhood leaders. Green infrastructure (GI) refers to constructed features that use living, natural systems to provide environmental services, such as capturing, cleaning and infiltrating stormwater; creating wildlife habitat; shading and cooling streets and buildings; and calming traffic.

Using lessons learned from working with neighborhoods, we developed a green infrastructure manual for Southwestern neighborhoods (available for free download at:

www.watershedmg.org/green-streets). Now standard green infrastructure designs are available to the general public and can be used to interface with municipal staff and traffic engineering firms.

Neighborhood residents are now advocating and requesting GI practices for their own neighborhood streets city-wide, thanks to our neighborhood leaders training and public workshops.

Linking backyard water conservation to local rivers and streams

The Tucson Conserve to Enhance (C2E) program enables people to link their backyard water conservation efforts with local river and stream restoration. This unique pilot program is a result of a collaborative partnership between WMG, the University of Arizona Water Resources Research Center, Sonoran Institute, and water utility Tucson Water.

Participants install water conservation features at their home, track their savings compared to a historical average, and donate their monetary savings to the C2E program. The C2E program funds river, stream, and wash restoration projects within the water utility's distribu-

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tion area. The C2E program is linked to WMG's Co-op program, so Co-op members are leading the way in conserving water to benefit local riparian areas.

The goal of the Conserve to Enhance program is to ensure water conservation translates into water designated for the environment. The decline and loss of desert rivers throughout the southwestern U.S. is devastating to wildlife and humans alike, through the loss of renewable water supplies, environmental services, and habitat. The loss of these services negatively impacts our economy (e.g. tourism, groundwater recharge, etc.) and quality of life. This voluntary reallocation of water through the Conserve to Enhance program at the local scale can help drive the development of environmental policies to ensure an environmental right to water allocations.

Greening Urban Watersheds refocuses traditional soil and water resource conservation efforts by engaging communities in what matters most, improving their quality of life. By working at different geographical scales and promoting grassroots activism, we can reframe conventional paradigms and turn problems into solutions.

WMG Hands-On Workshops in 2010 By Program

- **30 Water Harvesting Certification (through 5 courses)**
- **24 Co-op**
- **9 Community Demonstration Sites**
- **8 Green Streets—Green Neighborhoods**
- **4 Schoolyard Water Education**



Water Harvesting Certification

Professional green job training

By Lindsay Ignatowski Outreach & Program Coordinator

After abandoning his career with the British police force, Jonny Gleed sold all his possessions and moved aboard a 32-foot sailboat for two years before settling in La Paz, Mexico.

Jonny had reevaluated his priorities and wanted to leave behind his “corporate-driven, consumer-based lifestyle” in favor of a more sustainable way of life. He wanted to bring permaculture and sustainable development practices to the La Paz area, and he turned to WMG for the training he would need.

Jonny successfully completed WMG’s 10-day Water Harvesting Certification program and is now working to create water harvesting demonstration sites in La Paz, Mexico.

With a changing economy, workers are adapting and acquiring new skill sets. More and more workers are looking to develop careers in line with emerging new consumer values that are focused on sustainability and self-reliance.

Watershed Management Group has been there to help workers by filling an important gap in green job education through our Water Harvesting Certification training.

While other industries have lost jobs during the economic downturn, green careers have been on the forefront of the new national economy, growing two-and-a-half times as fast as other sectors. While new home construction has halted, homeowners have sought to increase the value and sustainability of their homes by adding greywater systems, cisterns, earthworks, and native trees. Both home

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Course Topics:

Integrated design

Native plants

Greywater systems

Plastic cisterns

Steel cisterns

Passive earthworks

Water policy

What Students Are Saying

“The course explained the basic concepts clearly and through the hands-on exercises, gave us the confidence to practice these concepts.”

“I am excited to share this information with my local community.”

“Seeing the transformations (on a site) in 4 or 5 hours was really inspiring.”

“We have been given all the tools to practice water harvesting .”

“WMG effectively presents a large amount of information in a short time.”

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and business owners have focused on improving the beauty and functionality of their sites by managing flooding and erosion, adding native plants to grow food and provide wildlife habitat, and capturing storm and rainwater for productive use.

In a time of scarcity, we have looked inward for resources, planting backyard gardens, harvesting fruit from trees in our own yards, and seeking to manage the water that falls on our own properties, relying less on municipal water.

WMG has provided workers with the knowledge and experience they need to participate in this new economy. Last year, we trained 60 landscapers, architects, educators, community activists, entrepreneurs, and engineers. In 2010, our 10-day Water Harvesting Certification program has helped workers from six states and three countries begin a new career, launch a business, or expand the range of services they are able to provide.

No other program provides the depth of hands-on training and expert classroom instruction that WMG's Water Harvesting Certification course features. In addition to classroom lectures and tours, the course includes approximately 30 hours of hands-on implementation workshops. To build skills in system installation, students travel to field sites to work with instructors to install greywater systems, cisterns, and water harvesting earthworks. This unique combination of theory and practice allows students to master both design principles and real-life applications.

Participants overwhelmingly praise the hands-on nature of the course as an integral part of their success in being prepared to design and implement water harvesting systems.

In 2011, WMG will hold four certification courses. In addition to our established Phoenix and Tucson sessions, we will expand to Santa Barbara, California, and will also hold our first all-Spanish language course in the fall in Tucson.





Left: Spring 2009. Rincon Heights neighbors had talked for years about turning this abandoned lot into a park. Once part of the floodplain of High School Wash, the lot had been used as an informal parking lot and a dumping ground. The lot was very slowly revegetating after a neighbor placed boulders to stop cars from driving on it.

Building Community Green Spaces

Feld Davis Pocket Park

Below: Summer 2010. Stormwater runoff feeds a perimeter of native trees that will grow to shade a series of benches in the park's interior. A mural wall and street painting define the park as a community space.



By James MacAdam, Green Streets - Green Neighborhoods Program Manager

WMG celebrated Earth Day 2010 at Feld Davis Park on a small corner next to High School Wash in Tucson's Rincon Heights neighborhood. We began the day with kids, families, and neighbors, painting images of flowing water, plants, and animals on the street next to the park. Over the previous year, WMG had partnered with the neighborhood to turn this dusty lot into a natural pocket park through community workshops installing water harvesting basins, curb cuts for capturing stormwater from the street, native trees and shrubs, a straw-bale wall with a beautiful mural, benches for sitting, and educational signage.

Earth Day 2009: The street was closed for a large workshop to install plants, water harvesting basins, and build the straw bale wall. Fifty people participated, and then enjoyed food and live music out in the street!





Above: Earth Month 2010: Kids join in to paint the street around the park, a proven method for calming traffic and drawing local interest.

Right/Below: Local aerosol artist Rocky Martinez volunteered his time to paint a gorgeous mural on the strawbale wall.



WMG International

In 2010, WMG established our first international office in India.

**By Jared Buono
Sr. Hydrology Scientist**

2010 was a pivotal year for WMG's international work. We were awarded our first international grant for work in Mexico, expanded our partnerships in West Africa, and opened our first international office in India.

BURKINA FASO, AFRICA

In Africa, WMG again partnered with Ananda Marga Universal Relief Team (AMURT), who we worked with in Ghana on a community water filtration project. This time, however, we went to Deou in northern Burkina Faso.

Burkina Faso is one of the poorest countries in the world, and the semi-nomadic community Deou, in the far North of the country, was struggling with a water crisis. Traditional livelihoods were devastated by drought, climate change, and overgrazing. Effects could be seen in malnutri-

tion, urban migration, and dropping groundwater levels. After an intensive round of public meetings, mapping, surveys, and tea drinking, we implemented a plan to train AMURT and community members to harvest runoff from the landscape to get more water in the wells during the dry season using very low-cost methods. Our AMURT partners are trained to carry on this work. Through several public hands-on workshops where we constructed demonstration structures, we taught methods to build and repair earthen dams, loose rock check dams, and gabions.

But it was clear that water quantity was not the only problem, as water quality was severely impacted by surface contamination, resulting in waterborne diseases. Working with AMURT staff, local health clinic staff and school teachers, WMG conducted toilet construction and

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Burkina Faso, Africa



Panchgani, India





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water quality workshops, hand washing tippy tap campaigns, and an intensive hygiene program at the local school, closing out with a large health festival.

The community and AMURT were pleased with the results and have invited us back for further collaboration in Burkina, opening the way for future projects in West Africa. Fundraising for this project allowed us to connect with some of our closest donors. We realize how many people passionately support WMG's international work, and it is projects like the one in Deou that your generous contributions make possible.

INDIA

2010 ushered in a new era for India operations. We've struck new partnerships, launched several long-term projects, and opened a new of-

fice. Relocating to Panchgani, Maharashtra, a few hours south of Mumbai, we've begun a partnership with Grampari. A relatively young organization, Grampari is building several rural development programs, including entrepreneurship, local governance, and health and environment. In exchange for bringing WMG's hands-on approach to community development, Grampari is providing us with lodging, shared office space, and shared staff support. Over the last six months we have been building watershed and sanitation programs in several villages. In one village, we are working with a local women's group to reforest the hills surrounding an important water source. In an adjacent community, we formed a watershed

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committee to protect and recharge a series of springs that provide water for all 50 village households. We also launched a school hygiene program promoting awareness of healthy sanitation practices, including a focus on the tippy tap that seems to resonate with people everywhere.

OUR APPROACH

While 2010 included many administrative and programmatic accomplishments, it was also a banner year for establishing our approach to development. In our Africa and India projects alike, it was clear that empowering the community is the key to project sustainability. Far beyond development of technical solutions, WMG's philosophy of service includes:

- Immersion in the communities we work in to understand the community and build relations and trust
- Ensuring that communities are educated in, invested in, and take ownership of each project
- Facilitating participatory processes whereby community members identify their specific challenges and develop their own solutions
- Hands-on workshops and inclusive atmos-

phere: everyone contributes to the technical design

Although this approach is often slow and difficult, we are committed to making change at the pace of the communities we serve.

Our work in India especially reflects and demands the core tenets of our philosophy of service. For example, in villages where much of the leadership is higher caste or consists only of men, we work hard to ensure that all voices are represented. Recently, it took 12 meetings with the village watershed management committee to finally allow women members to participate. Given that they are the primary water gatherers of their households, the women have contributed greatly to the decision making and have earned the men's respect.

We're proud of our work in 2010 and we look forward to continuing the journey in 2011. We will be scaling up our international infrastructure, hiring staff, and expanding our watershed and sanitation programs. But most importantly, we will be spending more time in villages and communities around the world helping to find sustainable solutions.

Donors

International Watershed: \$1000+

Kim & Jim Afinowich
Anonymous
Jared Buono &
Sowmya Somnath
Marguerite Fisher
Jill & Paul Grimes
Donna Lines
Catlow & Lisa Shipek
Edwin Thompson

River Basin: \$500

Henry & Ruth Jacobson
Wil & Mai Ho Schaefer
Barbara Buono
John Carlton
Nicole Buono
Randolph Accetta
Jeff Lyon

Flowing River \$100

Robin Afinowich
Eric Almi
Constance Bachman
Susan Banes
Pierre Bondoumbou
Christopher Brooks
Ross Bryant

Howard Canfield
Danielle Charbonneau
Bill & Robin Charles
Debra & Charles Cochran
Cat Crawford
Emily Creigh
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Patricia DeWitt
Keri Dixon
Tamarha & Keith Evert
James Fiedorek
Vicky Foster
Tory Foster
Toby Freebourn
Heather & Dustin Garrick
Andrew Gorski
Ilene Grossman
Ravi Gulati
Joan Hall
Diane Hanover
Karin Have
Thomas Heye
Janet Hill
Holly Hill MacAdam
Terese & Peter Ireland
Ian Johnson
Leslie Nixon & Barry Kirschner
Ron Kuykendall
Dudley & Merry Lewis
Kathleen & John Ligon

Contribute Today

WMG relies on contributions to provide affordable services and continue to develop new community programs.

Please support us by making a donation at www.watershedmq.org/contribute or by mail to WMG, P.O. Box 44205, Tucson, AZ, 85733.

Victoria Ligon
Nadine McCarthy
Sarah Tarver-Wahlquist &
Robert McLane
Jay Meyers
Thomas Moore
Shirley Muney
Jill Nunes
Stacey Plassmann
Aroon Ramnath
Francine Shacter
Priti Shah
David Shipek & Miss DeFoor
Joe Silins
Stephanie & Adam Springer
Josephine Thompson
Joan Warfield
Barbara Warren
Alan Ziblat
Ross Zimmerman



Major Funders



Arizona Department of Environmental Quality



United States Environmental Protection Agency



United States Fish and Wildlife Service

Small Grants and Funders

Community Foundation of Southern Arizona | Central Arizona Project | Food Conspiracy Co-op | Jeff & Connie Woodman Foundation | Rotary Foundation (Oro Valley and Casas Adobes, Arizona)

Partners

Business: Catalina Care Nursing Facility

K-12 Schools: Khalsa Montessori School | Manzo Elementary | Miles Exploratory Learning Center | Salpointe High School | YouthWorks

Municipal/Government: City of Tucson Department of Transportation | Tucson Water | Ward 2 Council Office

Neighborhood Associations: Campbell/Grant Neighborhood Association | Dunbar Spring Neighborhood Association | Northwest Neighborhood Association | Rincon Heights Neighborhood Association | Samos Neighborhood Association | Silvercroft Neighborhood

Non-Profits: 4th Avenue Merchant's Association | Arizona Homegrown Solutions | BorderLinks | Community Food Bank | PRO Neighborhoods | Southwest Conservation Corps | The Sonoran Institute | Trees for Tucson | Tucson Audubon | Tucson Clean and Beautiful

University: University of Arizona Blue Chip Program | University of Arizona Water Resources Research Center | University of Arizona Bureau of Applied Research in Anthropology

International: AMURT, Grampari

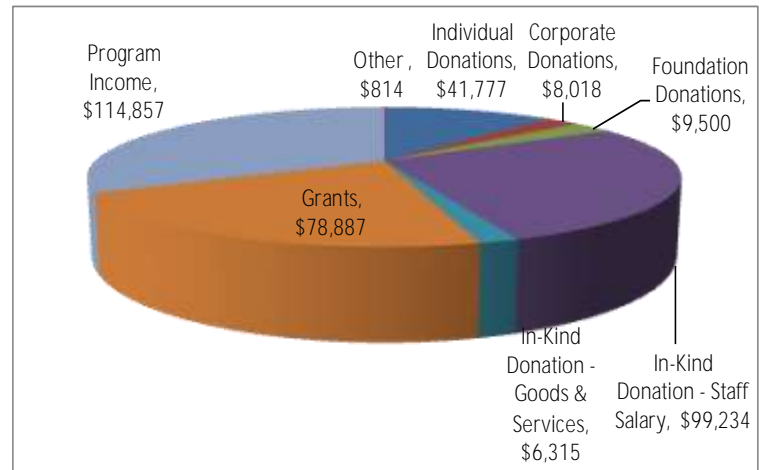
Corporate Sponsors

A Perfect Occasion Catering | KXCI Community Radio | Southern Arizona Rain Gutters | Ordinary Bicycles | Double Check Ranch | Lil' John's Excavating | Oasis Water Harvesting | Prescott College | River Road Gardens | Ace Hardware | Technicians for Sustainability | Volunteer Center of Southern Arizona | Desert Sky Home Repair | Milagro Co-housing | Peace Supplies | Hydro Geophysics | Originate Natural Building Materials | Sage Landscape Architecture | Rammed Earth Development, Inc.

Financial Report

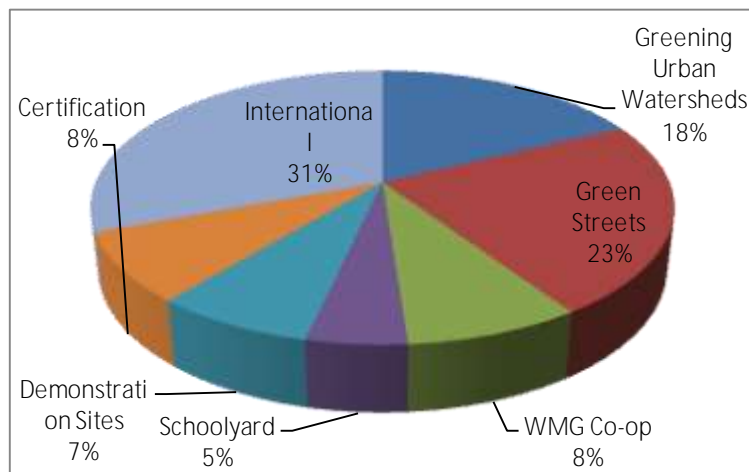
Income

Program Income	\$114,857
In-Kind Donation - Staff Salary	\$99,234
Grants	\$78,887
Individual Donations	\$41,777
Foundation Donations	\$9,500
Corporate Donations	\$8,018
In-Kind Donation - Goods & Services	\$6,315
Other	\$814
Total	\$359,401



Expenses

Total: \$347,626 • Administration: 8%
Fundraising: 6% • Programs: 86%



Program Expenses

International	\$91,753
Green Streets - Green Neighborhoods	\$68,181
Greening Urban Watersheds	\$52,984
WMG Co-op	\$24,528
Water Harvesting Certification	\$24,469
Water Harvesting Demonstration Sites	\$22,378
Schoolyard Water Conservation Education	\$14,064
Total	\$298,357

WMG Staff

Tucson Staff

Lisa Shipek, Executive Director

Blue Baldwin, Workshop Instructor

Allen Denomy, Workshop Instructor

James DeRoussel, Project Manager

Lindsay Ignatowski, Outreach & Program Coordinator

James MacAdam, Green Streets Program Manager

Lincoln Perino, Workshop Instructor

Adam Schwartz, Workshop Instructor

Catlow Shipek, Sr. Program Manager

Rhiwena Slack, Co-op Coordinator

Tory Syracuse, Schoolyard Coordinator and Project Manager



Lisa Shipek



Blue Baldwin



Allen Denomy



James DeRoussel



Lindsay Ignatowski



James MacAdam



Lincoln Perino



Adam Schwartz



Catlow Shipek



Rhiwena Slack



Tory Syracuse

India Staff

Jared Buono, Senior Hydrology Scientist

Sowmya Somnath, Engineer and Sanitation Specialist



Sowmya Somnath



Jared Buono



Stormwater runoff from neighborhood streets flows through curb cuts into vegetated basins, passively irrigating young trees and cleaning the stormwater of pollutants through natural processes.