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**Course Announcement**  
**WMG Water Harvesting Certification**  
**July 9-18, 2010**  
**Tucson, AZ**

Watershed Management Group (WMG) is currently accepting applications for the *WMG Water Harvesting Certification* course to be held July 9 – 18<sup>th</sup> 2010 in Tucson, Arizona. We are accepting applications until May 10. The WMG Water Harvesting Certification program is a hands-on training course to earn certification in water harvesting design and implementation. WMG's goal is to effectively transfer water harvesting knowledge to those who will teach these practices and utilize them in their professions. The aim of the certification program is to provide the highest quality training in integrative water harvesting offered in the nation.

**Program Description**

The WMG Water Harvesting Certification program is designed for professionals, educators, and community organizers seeking comprehensive instruction in water harvesting systems design and construction. What sets the program apart is its combination of hands-on and classroom instruction. This unique approach provides participants with a thorough, on-the-ground understanding of the core practices in this increasingly popular field.

WMG offers the program at various times throughout the year, both as a 9-day intensive course (in Tucson) and as a weekend course spread out over 8 weekends (in both Tucson and Phoenix). This announcement and call for applications is for an intensive 9-day training in Tucson, Arizona from July 9-18, 2010.

The curriculum focuses on water harvesting planning, design, and installation for retrofitting urban areas. A typical day will include a 4-5 hour hands-on, outdoor workshop in the morning, and 2-4 hours of lectures or assessments in the afternoon. Outside work is generally scheduled for the morning to avoid the warmest part of the day.

The Water Harvesting Certification program includes the following:

- Lectures on each major topic
- Hands-on assessments at the sites where projects will be implemented
- Training workshops where participants learn by constructing water harvesting systems at public, residential, or commercial sites
- Reading and applied homework assignments to solidify knowledge gained in the hands-on workshops
- Final exam to earn certification

## Meaning of Certification

Certification signifies that the participant has received a thorough training and has demonstrated a basic level of proficiency (via a written examination) in the topics outlined in the curriculum.

The Water Harvesting Certification course is designed and administered by WMG staff with assistance from an advisory board made up of professionals who teach and implement water harvesting practices. The lectures and trainings are taught by WMG staff and well-respected guest instructors.

To earn certification, participants must attend all course sessions, complete all written assignments, and earn a 90% on a written examination on concepts and applications of water harvesting taught in the course. The exam is challenging, and focuses on critical thinking and practical application instead of rote memorization. Support is given throughout the course to prepare for the exam. If students do not pass the exam, they will receive personalized feedback from WMG staff and can re-test at the next scheduled test date without a fee.

Participants who earn certification are listed (if they desire) on WMG's web site as a *WMG Certified Water Harvesting Practitioner*, with contact information for the participant or their business.

Participants who complete the Water Harvesting Certification will be able to:

- Integrate water harvesting systems with other design considerations (energy conservation, aesthetic design, food production, wildlife habitat, etc.)
- Calculate runoff potential of catchment areas and run soil percolation tests
- Create a water budget and match water harvesting systems with appropriate landscaping
- Choose, size, and build appropriate earthworks features for different applications (basins, berms, swales, French drains)
- Design greywater systems from laundry, bathroom sink, and bathroom shower water
- Build gravity-fed greywater system from laundry machine wastewater to irrigate landscape
- Size and build steel-culvert cistern
- Size and install plastic cistern
- Design water harvesting systems to support small-scale food production (including earthworks design, cistern design and application, and soil improvements)
- Design all of the above systems while incorporating safety and health considerations

## Training Schedule

The training will begin Friday, July 9 at 6pm, and conclude on Sunday, July 18 at 2pm. The following is the tentative schedule for the course (this is subject to change within the dates given):

	<b>Fri July 9</b>	<b>Sat July 10</b>	<b>Sun July 11</b>	<b>Mon July 12</b>	<b>Tues July 13</b>
<b>Morning Session</b>	none	Integrated Design with James MacAdam, <b>8am - 12:30pm,</b>	Cistern Presentation & Site Assessment with Lincoln Perino, <b>8am - 12pm,</b>	Cistern Install part I with Lincoln Perino, <b>7am - 12pm</b>	Passive Water Harvesting install with Catlow Shipek, <b>8am - 12pm,</b>
<b>Break/Lunch/Travel to next location</b>					
<b>Afternoon Session</b>	Potluck & Introduction to Water Harvesting with Brad Lancaster <b>6pm-8:30pm</b>	Tour of existing water harvesting sites with Lisa Shipek, <b>2pm-5pm</b>	Greywater Presentation & Site Assessment with Brad Lancaster, <b>1:30pm-5:30pm</b>	Earthworks Presentation & Site Assessment with Catlow Shipek, <b>1:30pm - 5:30pm</b>	Calculating Water Budgets with Catlow Shipek, <b>1pm - 3pm</b> ; Water Harvesting Policy with James MacAdam <b>3pm - 5pm</b>

	<b>Wed July 14</b>	<b>Thurs July 15</b>	<b>Fri July 16</b>	<b>Sat July 17</b>	<b>Sun July 18</b>
<b>Morning Session</b>	Passive Water Harvesting install with Catlow Shipek, <b>8am - 12pm,</b>	Greywater system install with Brad Lancaster, <b>7am - 12pm,</b>	Cistern Install part II with Lincoln Perino, <b>7am - 12pm</b>	Plastic cistern install with Lincoln Perino, <b>8:00am-12pm</b>	Final Exam & Wrap Up with lunch, <b>9am-2pm</b>
<b>Break/Lunch/Travel to next location</b>			Study session + lunch <b>12:30pm-2pm</b>		Lunch provided @ WMG office
<b>Afternoon Session</b>	Landscape Design Presentation with (TBA), <b>1:30pm-3:30pm</b>	Water Harvesting for Food Production with (TBA) <b>5pm-7pm</b>	Native Plant Hike with Nate O'Meara, <b>4pm-7pm</b>	Afternoon off to rest & study	

## **Program Cost**

The cost of the program is \$875 per participant. WMG provides a limited number of scholarships up to \$300 for assistance to defray costs for those in need.

## **Program Requirements**

If you are selected to participate in the Water Harvesting Certification program, you must commit to the following:

1. Participating in the entire training program. If you must miss a session, you will be required to make up the training at a later date to earn certification.
2. Completing reading and written assignments. Assignments will be provided prior to the training dates.
3. Paying the complete program fee by June 10, 2010. Program fee is nonrefundable after this date.

## **Applying to Program**

To be considered for the July 2010 program, please submit an application and one page resume. WMG will review applications for the Water Harvesting Certification on a rolling basis between March 15 and May 10 for this course.

Application to the Water Harvesting Certification is competitive; it is possible we will not be able to accommodate all the applicants that we receive. Preference is given to those applicants who demonstrate that they have the capacity to utilize the skills and knowledge learned in their profession and/or community in a direct way.

Applicants will be notified of the status of their application on a rolling basis; however all applicants will be notified no later than Friday May 15. If you are accepted in the course, a \$100 deposit will be due within one week of acceptance week to hold your spot. Full payment will be due June 10 (the deposit is also refundable until this date).

If you have any questions about the training program or application process, please contact James MacAdam by email at [james@watershedmg.org](mailto:james@watershedmg.org) or by phone at 520-396-3266. You may learn more about Watershed Management Group by visiting our website at [www.watershedmg.org](http://www.watershedmg.org).

## **Training Curriculum**

- 1) Integrated systems design
- 2) Passive rainwater harvesting design and installation
  - a) Basins
  - b) Berms
  - c) Swales
  - d) French drains and infiltration features (design only)
- 3) Greywater harvesting design and installation
  - a) Bathroom sinks and showers (design only)
  - b) Laundry machine (design and installation)
- 4) Cistern systems design and installation
  - a) Steel culvert cistern
  - b) Plastic cistern
- 5) Sustainable Landscaping
  - a) Fundamentals of landscape design
  - b) Native plants
  - c) Calculating water budgets
- 6) Water harvesting for food production
- 7) Water Harvesting Policy

### Instructors:

- Brad Lancaster, consultant and author of Rainwater Harvesting For Drylands
- Catlow Shipek, WMG Senior Watershed Specialist
- James MacAdam, WMG Project Manager
- Lincoln Perino, WMG Instructor and cistern installer with Technicians for Sustainability
- Lisa Shipek, WMG Executive Director
- Nate O'Meara, horticulture and botanical consultant, Kitchen Garden Consulting