



P.O. Box 44205
Tucson, AZ 85733
www.watershedmg.org

Course Announcement Water Harvesting Certification November 4 - 13, 2011 – Tucson, AZ

Watershed Management Group (WVG) is pleased to announce that this November it will offer its Water Harvesting Certification course for the first time in Spanish. The Water Harvesting Certification program is a comprehensive educational program that teaches participants the essential concepts for design and implementation of water harvesting practices.

This course will be held in Tucson, AZ, from November 4 to 13, 2011. The cost of the course is \$1,200 for applications received by September 1, and \$1,050 for early registration applications received by August 1. WVG has several full and partial scholarships available for qualifying border residents.

Details about the course, availability of scholarships, and how to apply follow below:

Program Description

The WVG Water Harvesting Certification provides a unique and comprehensive training with a 65-hour curriculum that combines hands-on application and fundamental principles in water harvesting system design and construction. The course emphasizes retrofitting both commercial and residential sites with cisterns, greywater systems, and water harvesting earthworks.

WVG's Certification program is characterized by experienced instructors, small groups, and complete immersion in the implementation and planning of water harvesting projects. The course is designed for professionals in engineering, architecture, landscaping, education, community activism, and hydrology.

This rigorous course includes readings, written homework assignments, site assessments, outdoor workshops, and lectures. A typical day includes a 4-5 hour hands-on outdoor workshop and 2-4 hours of lectures or site assessments.

Scholarship Requirements

Funded in part by a partnership between U.S. EPA and Border Environment Cooperation Commission (BECC), this course will focus on training residents of the Arizona/Sonora border region and will provide several partial to full scholarships for residents within 60 miles of the border to gain hands-on instruction and skills that they can bring back to implement in their own communities.

Scholarship priority will be given to applicants meeting the following criteria:

**Watershed Management Group | 520.396.3266 | watershedmg.org
P.O. Box 44205 | Tucson, AZ 85733**

- Location: Live or work with community members along the Arizona-Sonora border (within 60 miles)
- Use of training: Will apply their training to teach others and implement water harvesting practices in the community in which they live or work
- Financial need: Participation in the program would be difficult without the scholarship.

Course Requirements and Qualifications

Application to the Water Harvesting Certification is competitive; it is possible we will not be able to accommodate all the applicants we receive.

Though there are no prerequisites or educational or professional requirements to participate in the course, 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.

In addition, all applicants are required to commit to participating in the entire program, including attending all course sessions and completing all readings and written assignments.

Meaning of Certification

Certification signifies that the participant has received a thorough training and has demonstrated a mastery of essential core concepts in the water harvesting topics outlined in the curriculum.

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

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 rainwater runoff potential of catchment areas and determine soil percolation rate
- Create a water budget and use water harvesting systems to match landscaping to available water supply
- Choose, size, and build appropriate earthworks features for different applications (basins, berms, swales, French drains)
- Design greywater systems from laundry machines, bathroom sinks, and bathroom shower water
- Build laundry to landscape greywater systems that comply with code requirements in CA
- Size and build steel-culvert cisterns
- Size and install plastic cisterns
- 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

Earning Certification

To earn certification, participants must:

- Attend all course sessions (consisting of lectures, hands-on site assessments, and training workshops to practice construction of water harvesting systems at public, residential, or commercial sites.)
- Complete all reading assignments and written homework to solidify knowledge gained in the lectures and workshops.
- Score 90% on a written examination of concepts and applications of water harvesting taught in the course. The exam is challenging, and focuses on critical thinking and practical application. 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*, along with contact information for the participant or their business.

Contact

If you have any questions about the training program or application process, please contact Lindsay Ignatowski by email at lindsay@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 or about the Certification program at www.watershedmg.org/certification. For more information on WMG's work in the border region, contact Joe Silins at jsilins@watershedmg.org.

Curriculum Details

- 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, WMG Sr. Watershed Specialist

Brad Lancaster has been an educator of sustainable systems since 1993. He is affiliated with, and/or taught for, Sonoran Permaculture Teachers Guild, ECOSA Institute, Watershed Management Group, University of Arizona, Prescott College, Audubon Expeditions, and the Permaculture Research Institute. Brad specializes in water harvesting and conservation meshed with integrated regenerative design and permaculture. A major focus of this work is transforming "wastes" into safe and productive resources. He is the author of Rainwater Harvesting for Drylands and Beyond, Volumes 1 and 2. Brad has been researching, testing, using, and teaching about compost and compost toilet systems since 1996.

Catlow Shipek, WMG Sr. Program Manager

Catlow Shipek has led over 75 water harvesting workshops for WMG over the past five years. He teaches the hands-on implementation of a variety of water harvesting systems including: cisterns, greywater systems, passive earthworks, and erosion control techniques. Catlow has a Master's in Watershed Management from the University of Arizona and experience with erosion and sedimentation research in southeastern Arizona's rangelands. He manages various WMG programs including the Green Living Co-op, Schoolyard Water Education, and Water Harvesting Demonstration Sites program, along with consulting and international work.

Lisa Shipek, WMG Executive Director

Since 2006, Lisa Shipek has served as the Executive Director of Watershed Management Group (WMG), a non-profit organization based in Tucson, Arizona. Lisa has expertise in developing training programs for professionals; developing environmental education programs for adults and children; and collaborating with a diverse range of partners to implement community-based environmental projects. Lisa directs fundraising, strategic development, and outreach activities for WMG. She manages several of WMG's programs including the unique Tucson Conserve to Enhance program that links individual water conservation savings with local river restoration and WMG's Water Harvesting Certification program that trains professionals from throughout the U.S and abroad. She holds a B.S. in Environmental Science and Masters in Latin American Studies.