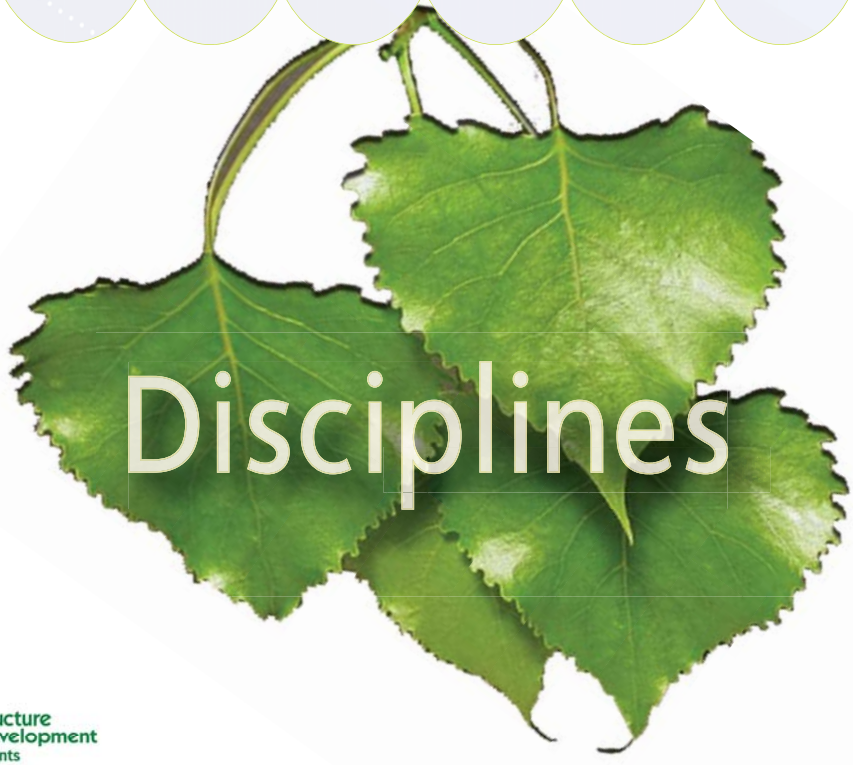
18th Water Conservation Conference & Expo

by: Xeriscape Council of New Mexico & Arid Low Impact Design

our water, our future: Communication and Cooperation ACROSS Disciplines



by:

Xeriscape Council of New Mexico

Green Infrastructure Low Impact Development in Arid Environments

February 28 & March 1, 2013
Albuquerque Marriott Pyramid North
5151 San Francisco Rd. NE, Albuquerque, NM

Thank You To Our Sponsors And Major Supporters

Our efforts to continue the Water Conservation Conference and Xeriscape Expo are supported by an increasing number of contributors including WaterWise Landscapes, Sites Southwest, the City of Rio Rancho, the NM Water Conservation Alliance, the Albert Pierce Foundation, PNM, the Southern Sandoval County Flood Control Authority, Bohannan Huston Inc., Riccobene Hardscape Innovations, Masonry Structures, Cooney, Watson and Associates, Inc., the American Society of Landscape Architects, Water Smart, Jericho Nursery and KUNM, our media supporter. Bookworks, one of Albuquerque's last independent bookstores, is again bringing the best of the written word on related subjects to both Conference and Expo.

We are extremely pleased with this diverse and generous support and with the fact that it demonstrates increasing community involvement in supporting water conservation. It is due to this support and the support of you, the life-long learners with strong commitments to their professions and to their communities who attend this conference, that we are able to provide such high quality speakers. These sponsors and the participation of the many vendors and non-profit exhibitors help us to maintain the Expo as a free educational event open to the public.

The Xeriscape Council of NM & Arid LID

Accepting Sponsorships for 2014

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Welcome To The 18th Water Conservation Conference!

The seeds of the Xeriscape Council of New Mexico were planted in 1987 at the first Xeriscape Conference held in Los Alamos, New Mexico. The founding members were a diverse group of private and public sector professionals with a common bond, our desire to make the world a better place through the design and construction of more environmentally responsible landscapes in the southwest. Our original message about water conservative, resource efficient, beautiful landscapes continues to resonate across the United States from New Jersey to San Diego and internationally from Saskatchewan to Melbourne. Those early efforts and the impact of climate variability that is increasingly difficult to ignore have resulted in words like watershed and sustainability, ecosystem and urban heat island effect becoming part of everyday speech. From the beginning our small group of volunteers has worked together relentlessly to educate people locally and nationally. Much has changed in the water conservation and landscape industry over the years but there is still much to do.

This year the Council is teaming up with Arid LID to present "*Our Water, Our Future: Communication and Collaboration ACROSS Disciplines*", this is another step toward establishing natural partnerships. This time the partnership is between engineers and landscape professionals; together we can build a synergy between site infrastructure and landscape to provide better water management. With what has been going on in the economy and the world in general we believe that communication and working collaboratively is a significant and timely message.

Our exceptional speakers this year will be led by keynoter Charles Fishman, author of *The Big Thirst: The Secret Life and Turbulent Future of Water*. Charles will explore the attitudes, misconceptions and undervaluation of water worldwide and the ways that declining water quality and increasing scarcity have been slowly bringing about new awareness and innovative policies to improve the situation in places as diverse as Australia, India and Southern Nevada. On Friday our keynote will be Woody Tasch, founder and chairman of Slow Money who will speak on the link between sustainable agriculture and the emergence of a restorative economy, using the flow of money to grow better lives for everyone. We think you will enjoy them both! Other speakers this year will discuss our current water and climate situation and their potential implications, case studies of collaboration between engineering and landscape architecture, integrating built and planted water management, rainwater harvesting to support both ecosystems and designed landscapes, the personal evolution of an environmental artist and the importance of communication across all these interests. We hope this year's conference will inspire you through some new and creative ideas for your own lives and a healthy regard for the direction of the water conservation movement.

We invite you to listen, talk and discuss these concepts with us, the speakers and each other, to make this year's conference one of our best collaborations yet, a memorable experience and a step toward an abundant future! We hope you find yourself inspired.

Thank You for Coming,

George Radnovich, Hunter Ten Broeck, Teresa Harner, Cheri Vogel, Judith Phillips, Marian Wrage, Richard Perce and Ryan Daniell, Steve Glass

The Xeriscape Council of New Mexico and Arid LID

Day 1 Agenda

Thursday, February 28	
8:00 – 8:30	Introductions and Conference Kick-Off – George Radnovich
8:30 – 9:30	Charles Fishman – *Big Thirst: The Secret Life and Turbulent Future of Water*
9:30 - 10:15	Bruce Thomson – *How Much Water We Have, How It's Used, How It's Managed Per New EPA Guidelines and Future Challenges*
10:15 – 10:30	Break
10:30 – 11:15	Dr. David Gutzler – *Annual climate report and distinctions between climate variability and climate change*
11:15 – Noon	Julio Betancourt – *Ecosystem Responses to Climate Variability and Change in the American West*
Noon – 1:30	Lunch
1:30 – 2:30	Mia Lehrer – *River Restoration and Community Revitalization: A Case Study*
2:30 – 3:15	Steve Harris – *Rio Grande Restoration*
3:15 – 3:30	Break
3:30 – 4:15	Judith Phillips – *Paving and Planting: Landscape Partners in Surviving Climate Extremes*
4:15 – 5:00	Chuck Easterling – *Designing to Manage Stormwater as a Landscape Asset*

Day 2 Agenda

Friday, March 1	
8:00 – 8:15	Introductions – George Radnovich
8:15 – 9:15	Woody Tasch – *Slow Money: Investing as if Food, Farms, and Fertility Matter*
9:15 – 10:00	John Fleck – *Media's Role in Making Water Issues Understood*
10:00 – 10:15	Break
10:15 – 11:00	Van Clothier – *Rainwater Harvesting*
11:00 – 11:45	Roy Hertweck – *Examples of Xeriscapes and Water Harvesting at Sandia National Labs*
Noon– 1:00	Lunch
1:00 – 1:45	Dana Karcher – *itree tools, Urban Forestry and Low Impact Development*
1:45 – 2:45	Miguel Santistevan – *Is Adaptation Possible?: Meeting the Challenge of Climate Change in the Ever-more Arid Southwest*
2:45 – 3:30	Fran Hardy – *My Evolution as an Environmental Artist*

Speaker Bios

Charles Fishman
Author, The Big Thirst: The Secret Life and Turbulent Future of Water

As a reporter, Charles Fishman has tried to get inside organizations, both familiar and secret, and explain how they work. In the course of reporting about water to write The Big Thirst, Fishman has stood at the bottom of a half-million-gallon sewage tank, sampled water directly from the springs in San Pellegrino, Italy, and Poland Spring, Maine, and carried water on his head for 3 km with a group of Indian villagers.

Fishman is a former metro and national reporter for the Washington Post, and was a reporter and editor at the Orlando Sentinel and the News & Observer in Raleigh, NC. Since 1996, he has worked for the innovative business magazine Fast Company. Fishman has won numerous awards, including three times receiving UCLA's Gerald Loeb Award, the most prestigious award in business journalism.

Fishman grew up in Miami, Florida, and went to Harvard. He lives outside Philadelphia with his wife, also a journalist, their two children, their two Labradors, and their two parakeets. He likes his water from the refrigerator spigot, with ice, or splashing across the bow of a Sunfish.

Bruce Thomson
Professor, University of New Mexico Department of Environmental Engineering

Dr. Thomson has a B.S. degree in Civil Engineering from the University of California, Davis, CA, and M.S. and Ph.D. degrees in Environmental Science and Engineering from Rice University, Houston, TX. He has been at the University of New Mexico since 1978.

Dr. Thomson teaches a wide range of courses in environmental engineering at the senior and graduate level including physical/chemical water treatment, biological wastewater treatment, aquatic chemistry, groundwater and contaminant transport modeling, and radioactive waste management. Much of this material has also been presented in nationally acclaimed short courses. His research interests focus on the chemical behavior and treatment of radioactive and inorganic water contaminants in both surface and ground water systems. Current projects include work on remediation of contamination from uranium mining and milling activities, development of tensiometric or dry barriers to prevent contaminant migration through the vadose zone, and evaluation of groundwater contamination from on-site wastewater disposal systems. Dr. Thomson has consulted nationally and internationally on management of wastes from the mining industry, radioactive and mixed wastes, and domestic wastes.

David S. Gutzler
University of New Mexico Professor of Meteorology and Climatology in the Department of Earth & Planetary Sciences

David S. Gutzler is Professor of Meteorology and Climatology in the Department of Earth & Planetary Sciences at UNM. He teaches courses on basic principles of weather and climate, and on statistical analysis of large data sets. His research is based on analysis of both observations and model output, with the goals of understanding the causes of climate variability and improving prediction skill on seasonal and longer time scales. He earned degrees from the University of California at Berkeley (B.S., Engineering Physics) and MIT (PhD, Meteorology), then held research positions in private industry and the Federal government before joining the UNM faculty in 1995. In 2008 he received an award for outstanding teaching from the UNM College of Arts & Sciences. He currently serves as a lead author for the chapter on detection and attribution of observed climate change for the next assessment report of the U.N. Intergovernmental Panel on Climate Change, due out later this year.

Julio Betancourt Ph.D.
U.S. Geological Survey Research Scientist

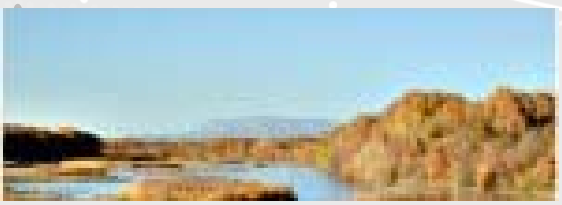
Julio Betancourt is a Senior Scientist with the U.S. Geological Survey and an Adjunct Professor at the University of Arizona in Tucson, where he obtained both his Master's and Ph.D. His training in the sciences is broad and includes geology, hydrology, climatology, and ecology. This has allowed him to do innovative research in the seams between disciplines, and to publish over one book and 150 technical papers in a wide variety of scientific journals (http://wwwpaztcn.wr.usgs.gov/julio_cv.html). Julio studies how climate variability affects terrestrial ecosystems at scales critical for understanding ecological and evolutionary processes to inform rational approaches to managing water and other natural resources under an uncertain and changing climate. He has conducted field studies across the western U.S. and Argentina, Bolivia, Chile, Mexico and Peru. Julio has received prestigious awards from the American Water Resources Association, the Ecological Society of America, the Geological Society of America, and the U.S. Department of Interior. In 2008, he was one of two scientists in USGS and the Department of Interior honored by the White House with the prestigious Presidential Rank Award, and in 2009, he was elected a Fellow of the American Geophysical Union. He has been a leader in both regional and national scientific initiatives. Over the past five years, Julio has helped organize the public and private sector led to control the spread of African buffelgrass in Southern Arizona (www.buffelgrass.org). Also in the past five years, he co-founded the USA-National Phenology Network (www.usanpn.org), to observe and predict how plants and animals will respond to climate change, and to help society adapt to a changing climate.

Mia Lehrer
Mia Lehrer+ Associates

Mia Lehrer is the founder of Mia Lehrer + Associates, known for its design and development of a wide spectrum of ambitious public and private projects that include urban revitalization developments, large urban parks, and complex commercial projects. Born in San Salvador, El Salvador, Ms. Lehrer earned her Masters of Landscape Architecture from the Graduate School of Design at Harvard University. Today, she is internationally recognized for her progressive landscape designs, working with such natural landmarks as parks, lakes, and rivers, coupled with her advocacy for ecology and people-friendly public space.

Mia Lehrer recently received professional recognition from ASLA for the Los Angeles River Revitalization Master Plan, "32 miles of a civic piece of infrastructure that has the opportunity to transform the city. The river overlay zone has the potential to change the face of the many communities that it traverses — 32 miles is many communities. The question is how to break that down into a really effective set of changes, and bring people from their schools and libraries down to the river. …how do you actually make the area more connected? How can we use green streets and affect change across the whole overlay zone, actually make it a new kind of space within the city that has a different sense of place. The federal mandate is to deal with flood protection and water quality. Anything that eventually goes back to the ocean has to achieve a certain level of water quality. The motivation is to create projects that enable you to clean water, but at the same time provide other benefits. Instead of putting a filter at the end of a pipe, you can actually clean the water through a park with a higher benefit to the community. It's a wonderful large-scale project, an infrastructure project that can have multi-benefits.

Steve Harris
Founder, Rio Grande Restoration Project



Rio Grande Restoration, a non-profit river advocacy organization founded by Steve Harris, works to assure that the Rio Grande will again flow as the Great River, with a restored ecosystem. Mr. Harris does not propose that we can return the river to its pre-settlement conditions. "Restoration", as he uses the term, means restoring a measure of lost biological integrity and function. Nature had an irrigation and flood control plan which we must try to rediscover, because unlike our own plans, it let life exist. I'm embracing the term "restoration" because the current notions of "preservation" or "protection" will not ensure that we have a healthy Rio Grande in our future. The river needs irrigating. More than any other combination of factors, simply managing our water to mimic the way nature does it, is the first order of business, if restoration is the goal. We must reconnect the river to its floodplain, providing periodic overbank flooding and we must shape our managed hydrographs in conformance with the natural ebb and flow conditions in which the river's biota evolved. We must understand and work in harmony with the river.

Judith Phillips
Landscape Designer & Garden Writer

Judith Phillips is principal of Design Oasis, a design and consulting service specializing in ecosystem inspired landscapes. Design projects include 1500+ gardens in New Mexico, Colorado and Arizona. Her experience researching and propagating native and adaptive landscape ornamentals informs her work as a designer and garden writer. Although plants are the heart of her design, she feels that extraordinary gardens are more than collections of plants, that the built landscape and the planting should serve each other: the land contours and hard surfaces collecting rainwater to supplement planting, trees shading walls and paving. She is an advocate of landscaping with native and xeric plants because resilience is our hope for a greener future. She has written five books and numerous articles encouraging people to garden with a passion for the high desert, speaks regionally on water conservation, native and arid-adapted plants and design, habitat gardening and related subjects and teaches a plants class in the Landscape Architecture Program at the University of New Mexico.

Chuck Easterling
President of Easterling Consultants LLC

As founder and president of Easterling Consultants LLC, a regional civil engineering firm specializing in the planning, design and construction of public and private site development and infrastructure projects, Chuck Easterling has 35 years of experience in a wide range of watershed scale projects including hydrologic and hydraulic evaluations, best management practices for agricultural water use and water quality, and community drainage and flood control master plans. Mr. Easterling is a pioneer in engineered solutions that integrate storm water management with landscape function and beautification.

Woody Tasch
Author, Inquiries into the Nature of Slow Money: Investing as if Food, Farms and Fertility Mattered

Woody Tasch is Founder and Chairman of Slow Money [1], a 501(c)3 non-profit formed in 2008 to catalyze the flow of investment capital to small food enterprises and to promote new principles of fiduciary responsibility to support sustainable agriculture and the emergence of a restorative economy. Tasch is Chairman Emeritus of Investors' Circle, a nonprofit network of investors that has facilitated the flow of $152 million to 250 sustainability minded, early stage companies and venture funds. For most of the 1990's Woody was Treasurer of the Jessie Smith Noyes Foundation, where he pioneered mission related investing. He is an experienced venture-capital investor and entrepreneur, he has served on numerous for-profit and non-profit boards, and was founding chairman of the Community Development Venture Capital Alliance, which supports venture investing in economically disadvantaged regions. In 2010, Utne Reader named Woody one of "25 Visionaries Who Are Changing Your World."

Woody's book "Inquiries into the Nature of Slow Money" is published by Chelsea Green [2] and now available in paperback..

John Fleck
Staff Writer, Albuquerque Journal

John Fleck is the science writer for the Albuquerque Journal and it his business to interview the scientists and policymakers who embody the issues especially regarding climate and water and translate their work for his readers. Though the news is rarely good and reporting it rarely easy, John's articles are always engaging and as balanced as reporting on ecological issues in times of rapid change can be. John is author of A Tree Rings' Tale, a book relating climate science and water to Western middle school students, and is currently working on a book about 21st century water policy in the Colorado River watershed. He has been the best local source for on-going information on water issues in New Mexico and will offer his perspective on networking and communicating water issues.

Van Clothier
Co-author, Let Water Do the Work: Induced Meandering, an Evolving Method for Restoring Incised Channels

Van Clothier is founder of Stream Dynamics, Inc., an organization providing assessment, design, construction, monitoring and maintenance for stream restoration, water harvesting earthworks and erosion control including proper road drainage to convert nuisance runoff into a valuable water resource. He studied physics at the University of California at San Diego, and received advanced training from the decades spent observing the stream that flows through his property in the Gila Mountains of southwestern New Mexico. Clothier is co-author with Bill Zeedyke of Let Water Do the Work: Induced Meandering, an Evolving Method for Restoring Incised Channels. His mission is to serve as an intermediary between the water and the people "increasing public awareness of the tremendous benefits of water harvesting and show people it is a graceful resolution to our water-related issues." Defining water harvesting as increasing the ability of soils to absorb and retain moisture and release it slowly over time, decreasing runoff and erosion, keeping the supply closer to the demand rather than sending it downstream, his is a hands on concept to construction to working system means of making limited water go further by sinking in and do more for all the interested parties sharing the land.

Roy Hertweck
Architect/Planner, Sandia National Laboratories

Roy Hertweck is a strategic planner working on development of large investments for mission success and corporate stewardship for site development at the Sandia National Labs Albuquerque campus. Mr. Hertweck has 35 years of professional experience and has worked at Sandia for the past 19 years. Mr. Hertweck is a registered architect, LEED AP and has a Masters of Architecture degree from the University of New Mexico 1983. Mr. Hertweck is a member of the American Institute of Architects, a past president of AIA Albuquerque, a member of the Board and past president for the New Mexico Architectural Foundation. He is a member of the USGBC New Mexico Chapter and a Board member of Rebuild New Mexico. Mr. Hertweck has been an advocate for sustainable design and ecology in the development of the Sandia Campus incorporating native landscape, water harvesting and design for people on an industrial site where science and technology rule the budget.

Dana Karcher
Davey Resource Group

Dana Karcher is the market manager for the Western Region of the Davey Resource Group. She assists communities with the development of urban forestry programs including, management plans, inventories, fire safe plans, grant procurement and iTree projects. She also assists utilities in reaching their vegetation management goals by supporting them with foresters, workload surveys, software and more. Ms. Karcher is a Certified Arborist and member of the Western Chapter of the International Society of Arboriculture serving as President Elect of the board of directors. She is a member of the Society of Municipal Arborists and the Utility Arborist Association where she serves on the editorial board. She is past President of the California Urban Forests Council and has served on Governor Schwarzenegger's Transportation Task Force for California's Central Valley.

Miguel Santistevan
AIRE

With a Bachelor of Science degree in Biology from the University of New Mexico and a Master of Science degree in Ecology from the University of California, Davis, Miguel Santistevan is currently a Ph.D. Candidate in Biology at the University of New Mexico. His research interests are in the traditional acequia-irrigated and dryland agricultural systems of the Upper Rio Grande and Sangre de Cristo mountains. Miguel is certified in Permaculture and ZERI Design and has been a high school science teacher in Pecos, Peñasco, and Taos school districts. He has directed youth-in-agriculture programs such as ePlaza of Hands Across Cultures, the Regional Development Corporation and the Sembrando Semillas youth-in-agriculture project of the New Mexico Acequia Association (NMAA). He has produced video and public radio programming (¡Que Vivan las Acequias!) with the NMAA and Cultural Energy, of which he is a Board Member. He maintains a conservation farm with his wife and daughter in Taos called Sol Feliz where he hosts educational presentations, tours, and hands-on workshops www.solfelizfarm.wordpress.com/sol-feliz-farm/. Mr. Santistevan coordinates a 'Living Seed Library' program through the Agriculture Implementation, Research, and Education non-profit corporation he is co-founding www.growfarmers.org..

Fran Hardy
Fine Artist, Producer/Host, Earth Chronicles Project

Fran Hardy is a fine artist using a wide range of media including documentary film to focus "on the natural world especially native flora and it's preservation." Fran's intricate drawings define her subjects in beautiful detail and arouse a sense of the importance of living things to her audience. Her Earth Chronicles Project—the Intersection of Art, Environment and Culture is an ongoing series of educational documentaries produced for broadcast and educational venues that are accompanied by exhibits at museums and other non-profit venues. New Mexico is the focus of the 2013 work. Images are worth many thousands of words; Fran's impressive resume including examples of her work can be found at www.franhardy.com.

Resources

Useful Websites

The websites listed below are just a few that contain helpful information relating to Xeriscape and southwestern landscapes, and each site is organized into specific topics. The following links are functioning and regularly updated as of press time, but this is subject to change due to the nature of changing website addresses, people, and technology.

ORGANIZATIONS

Xeriscape Council of New Mexico: http://www.xeriscapenm.com/

Xeriscape Colorado, Inc.: http://www.xeriscape.org/

Xeric Garden Club of Albuquerque: http://www.angelfire.com/nm/xericgardenclubabq/xeric.html

The Arizona Native Plant Society: http://AZNPS.org

Native Plant Society of Texas: http://www.npsot.org/

Albuquerque Bernalillo County Water Utility Authority: http://www.abcwua.org/content/view/73/63/

Colorado State University: http://www.colostate.edu/Dept/CoopExt/4dmg/Xeris/xeris1.htm

Arid LID: http://www.aridlid.org/

DESIGN AND GENERAL XERISCAPE INFORMATION:

City of Albuquerque Xeriscape Information: http://www.cabq.gov/waterconservation/xeric.html

New Mexico Water Conservation Program: http://www.ose.state.nm.us/conservation_index.html

Colorado Springs Utilities, Xeriscape Online: http://www.csu.org/

Denver Water Department: http://www.water.denver.co.gov/indexmain.html

Las Vegas Valley Water District: http://www.lvvwd.com/

Xeriscaping & Southwestern Gardening (Discussion Group): http://www.gardenweb.com/forums/swest/

PLANT LISTS / DATABASES:

Low Water-Use Landscape Plants for the Southwest (Albuquerque): http://weather.nmsu.edu/AbqPlantList/index.htm

El Paso County Suggested Plant List: http://aggie-horticulture.tamu.edu/plantanswers/publications/westtexas/wtexas.html

Plant List of the Verde Valley and Sedona: http://www.naturesongs.com/vvplants/

Plant of the Month for the Mesilla Valley (Las Cruces area): http://weather.nmsu.edu/nmcrops/ornamentals/plantofmonthindex.htm

TreeUtah: http://treeutah

New Mexico Interactive Plant List : http://wuc.ose.state.nm.us/Plants/

WUCOLS: A guide to irrigation water needs of landscape plants in California: http://wwwdpla.water.ca.gov/urban/conservation/landscape/wucols/index.html

USDA PLANTS Database: http://plants.usda.gov/

Fire Effects Information Service (USDA Forest Service Plant List): http://www.fs.fed.us/database/feis/

Atlas of Important Trees and Shrubs in North America: http://greenwood.cr.usgs.gov/pub/ppapers/p1650-a/

Flora of North America: http://hua.huh.harvard.edu/FNA/

Atlas of Nevada Mountain Ranges: Vegetation: http://www.brrc.unr.edu/mtn/html/ref/daczone.html

WEATHER—CLIMATE—ENVIRONMENT:

New Mexico State University Climate Center: http://weather.nmsu.edu/

National Weather Service Office, Albuquerque NM: http://www.srh.noaa.gov/abq/

National Weather Service: Interactive Weather Information Network: http://weather.gov

Western Regional Climate Center: http://www.wrcc.dri.edu/

Weatherbase: http://www.weatherbase.com/

Desert USA: http://www.desertusa.com/

Chihuahuan Desert Research Institute: http://www.cdri.org/

BASIN: Boulder Area Sustainability Information Network: http://bcn.boulder.co.us/basin/

Greatplains.org: http://greatplains.org/

Botanic Gardens And Museums To See Xeriscape:

Rio Grande Botanic Gardens (Albuquerque): http://www.cabq.gov/biopark/garden/index.html

Arizona – Sonora Desert Museum (Tucson): http://www.desertmuseum.org/

Chihuahuan Desert Gardens, UTEP Centennial Museum (El Paso): http://nasa.utep.edu/chih/gardens/gardens.htm

Denver Botanic Gardens: http://www.botanicgardens.org/

Desert Demonstration Gardens (Las Vegas NV): http://www.lvvwd.com/html/spec_proj_gardens.html

Las Vegas Springs Preserve (Las Vegas, NV): http://www.springspreserve.org

Mesa Xeriscape Demonstration Garden (Colorado Springs): http://www.csu.org/xeri/

Tohono Chul Park (Tucson): http://www.tohonochulpark.org/

Xeriscape-related Organizations in Albuquerque

XERISCAPE COUNCIL OF NEW MEXICO

For more information call 505-468-1021 or write to The Xeriscape Council of NM at P.O. 6186, Albuquerque, NM 87197-6186.

XERIC GARDEN CLUB

Membership is open to those interested in learning more about xeriscape and promoting the Xeric Garden Club's goals. Meetings are held on the third Saturday of each month from 9:00 am to noon. Dues are $12 per year and can be mailed to PO Box 81615, Albuquerque, NM 87197-8615. For more information, call Debbie Erfer at (505) 292-2687.

NATIVE PLANT SOCIETY OF NEW MEXICO

Contact our Poster Chair of Book Sales representative for more information. Local chapter contacts in Albuquerque are Carolyn Dodson at 268-7889 or Beth Herschman at 296-0763. Any correspondence can be addressed to NPSNM, POB 5917, Santa Fe, NM 87502-5917.

Xeriscape Demonstration Gardens

BACHECHI OPEN SPACE PARK
Corner of Alameda and Rio Grande NW, Albuquerque, NM

RIO GRANDE BOTANICAL GARDEN
2601 Central Ave. SW, Albuquerque, NM (505) 764-6200

RIO GRANDE NATURE CENTER STATE PARK
2901 Candelaria Rd. Albuquerque, NM (505) 344-7204

SANTA FE GREENHOUSES, XERISCAPE DEMONSTRATION GARDEN
2904 Rufina Street, Santa Fe, NM (505) 473-2700

RIO RANCHO, WATERWISE DEMONSTRATION GARDEN
Pinetree Road and Southern Blvd, Rio Rancho, NM (505) 891-5000

BOSQUE DEL APACHE NATIONAL WILDLIFE REFUGE VISITOR CENTER
South of Socorro, NM (505) 835-1828

DENVER WATER
1600 York St., Denver, CO (303) 628-6348

DENVER BOTANIC GARDENS
1600 W. 12th Street, Denver, CO (303) 331-4000

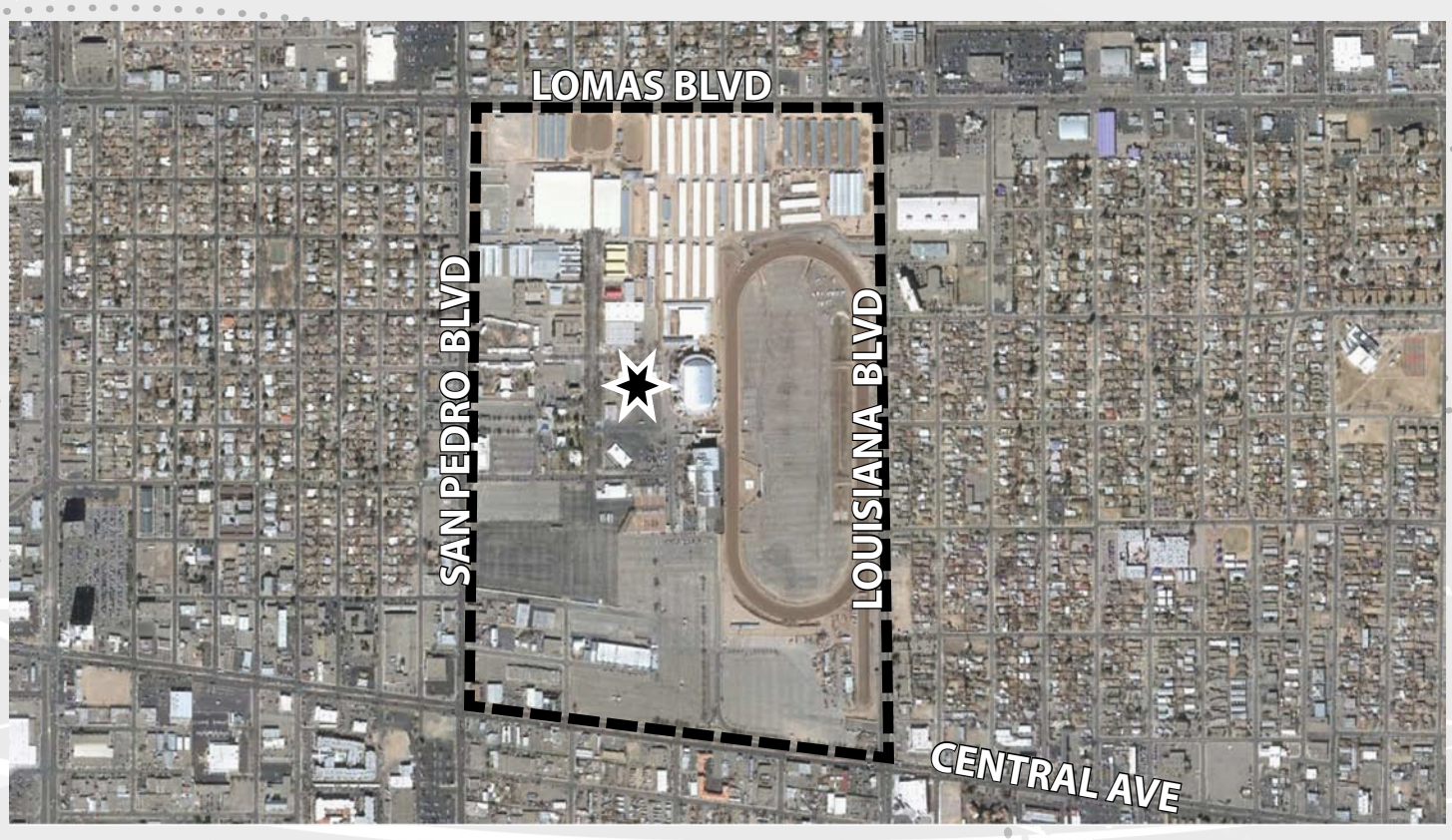
MESA WATER TREATMENT PLANT
Colorado Springs, CO (719) 636-5407

Xeriscape Expo Free Seminars Speaker Schedule

Time	Saturday March 2nd	Sunday March 3rd
The Bohannan Huston Room		
11:00	Harvesting Urban Rivers: Capturing Rainwater for Landscape Use – Jen Zawacki and Steve Vrooman	Good Bugs: Attracting and Sustaining Beneficial Insects in the Farm & Garden – Tessa Grasswitz
1:00	Living Landscapes of New Mexico – Bill Dunmire	Living Landscapes of New Mexico – Bill Dunmire
3:00	Green Living: a Homeowner's View – Kathy Brown	Tree Selection for Albuquerque – Richard Perce
The WaterWise Landscapes Room		
11:00	Terrain First! – Jim Brooks, Soilutions	Waterwise Food Growing – Sean Ludden, Los Poblanos
1:00	Drip Irrigation – Brian Henrie	Xeric Design & Favorite Plants – Hunter TenBroeck
3:00	Pruning Talk &Demo – Barbara Russell	Ask the team your Xeriscape Questions – George Radnovich, Hunter TenBroeck, Judith Phillips
The Jericho Nursery Room		
11:00	Water Budgeting – Jim Knopf	Coping with Extremes: Strategies for Adapting Gardens to Changes in Climate – Judith Phillips
1:00	Landscape Drought Water Management – Richard Chapman, ABCWUA/Smart Use	Landscape Maintenance Walking Tour – Richard Perce
3:00	Urban Forestry – Jennifer Scacco	Smart Controllers – Lonnie Burke

MAP OF EXPO, New Mexico

Creative Arts Building



Below is a partial list of exhibitors at our Xeriscape Expo.

Albuquerque Bernalillo County Water Utility Authority

ABC Seamless

ABQ Landscaping

Bernalillo County

Bookworks

Buildology

Desert Blooms

Great Outdoors Nursery

Great Basin Greenhouses

Jericho Nursery

Judith Phillips Design Oasis

Masonry Structures

NMSU Ag Science Center

Office of State Engineer

Plant World

Rio Rancho, City of

Rio Grande Cacti

Sandia Sunrooms

Soilutions

Waterwise Landscapes

About Xeriscape Council of New Mexico

OFFICERS:
George Radnovich, President • Hunter Ten Broeck, Vice President • Teresa Harner, Treasurer • Richard Perce, Secretary

COUNCIL MEMBERS:
Hunter Ten Broeck • George Radnovich • Teresa Harner • Richard Perce • Judith Phillips • Marian Wrage • Cheri Vogel
Honorary Members: Ryan Daniell

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The Xeriscape Council of New Mexico was formed in 1986/87 after green-industry professionals interested in the use of native plants in conservation attended a Xeriscape Conference in Los Alamos, New Mexico.

Council Projects

The Xeriscape Council is education and project oriented. Its primary project is an annual conference on topics in water conservation and landscape. The Council brings high-level globally oriented experts and speakers to Albuquerque for the two-day conference, and free public seminars that are held at a two-day Expo following the conference. The public sessions focus on more practical 'how to' seminars on design, plant selection, irrigation and maintenance.

The Xeriscape Council incorporated in 1998 and received 501(c)(3) status in 1999. It conducts educational programs, training sessions and conferences on the general topic of Xeriscaping and its role in water conservation. The Council produces books, materials and reports, and conducts other general consulting activities on the topic of conservation.

Mission & Goals:

The Xeriscape Council's main goal is to educate New Mexicans and others about water conservation, and to promote native, low-water plants and landscaping/irrigation methods in New Mexico as a means of water conservation. According to Council President George Radnovich, the Xeriscape Council of New Mexico has accomplished its original goal through multiple promotional means, while influencing the City of Albuquerque in its current water-conservation initiatives. Those initiatives include a water-conservation ordinance with associated rebate programs that encourages water-conserving landscapes and irrigation methods, as well as indoor water-saving technologies. The Council continues to work closely with the City of Albuquerque on water-conservation efforts.

Membership

Membership in the Xeriscape Council is open to the public; however, only active members may serve on its board of directors. Members include landscape architects and designers, horticulturists, management consultants, landscapers, Master Gardeners, extension agency professionals, homeowners, and grounds maintenance workers. The Council meets monthly throughout the year to plan and manage its activities. Its only regular, on-going expenses are its post office box and website. There is no paid staff and no specific office space. Meetings are held at the offices of Sites Southwest and WaterWise Landscapes in Albuquerque.

Interested in joining the Council, email us at xquestions@xeriscapenm.com.

Stormwater Low-Impact Development Sites in the Albuquerque Metro Area

Introduction

A number of sites in Bernalillo and Sandoval counties have already incorporated green infrastructure and low-impact development (GI LID) designs. The following pages briefly describe several of these sites that demonstrate GI LID principles. Information on how to access each site is provided for those who may wish to visit.

This guide features eight sites. Between them, the sites demonstrate several types of GI LID features: stormwater catchment used for landscape watering and turf watering, depressed landscaping, permeable pavement, retention ponds, a green roof, and an intermittent fountain.

Sites

Aperture

Developed By
Forest City for Mesa del Sol

Type of LID
Netafin turf watering system

Description
The turf grass at the front of this site is watered by a subterranean irrigation system. This installation is unique because Netafin is generally used for watering landscaping plants rather than turf. Also note the depressed landscape areas used to provide initial stormwater filtration.

Location and Directions
Aperture
5700 University West Blvd SE, Suite 310
Albuquerque, NM 87106

Take I-25 S to Rio Bravo Exit East. Take University Blvd south.

Access
This site is accessible to the public at all hours.

Views of Aperture Park.

Applied materials

Developed By
Forest City for Mesa del Sol

Type of LID
Stormwater catchment cistern

Description
This site has a rooftop catchment system on the east side of the building. The water is stored in a cistern. When cistern water is available, it is used for landscape watering; at other times the irrigation system switches to the municipal water supply.

Location and Directions
Applied Materials (formerly Advent Solar)
5600 University Blvd SE
Albuquerque, NM 87106

Take I-25 S to Rio Bravo Exit East. Take University Blvd south.

Access
This site is accessible to the public at all hours.

Top: depressed landscaping and water harvesting.
Bottom: permeable pavement.

Fidelity Investments

Developed By
Forest City for Mesa del Sol

Type of LID
Permeable pavement, depressed landscaping, retention ponds, water harvesting

Description
At this site several low impact features have been installed. Note the permeable pavement. On the south side there is a regional retention pond. Depressed landscape areas collect stormwater and provide an initial filtration of the water.

Location and Directions
5401 Watson Dr. SE
Albuquerque, NM 87106

Take I-25 S to Rio Bravo Exit East. Take University Blvd south to Crick Ave. Make a left on Crick Ave, then a right on Watson Dr.

Access
This site is accessible to the public at all hours.

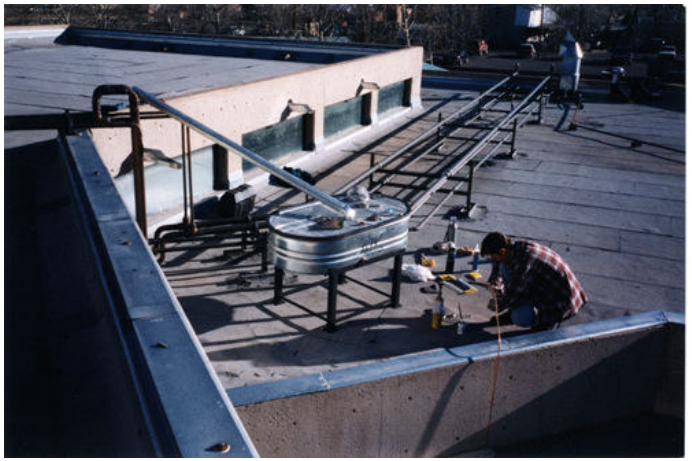
Desert Fountain

Developed By
Basia Irland

Type of LID
Artistic feature

Description
Desert fountain is an ephemeral, gravity-fed fountain designed by Basia Irland in 1998 that makes use of rainwater when it is available. Water from a portion of the museum roof is captured in a cattle tank and slowly dispenses through the fountain for several hours following a rain event. After traversing the fountain, the water drains to the museum landscape.

Basia Irland is a sculptor and installation artist, a poet and book artist, and an activist in water issues. She is Professor Emerita, Department of Art and Art History, University of New Mexico, where she established the Arts and Ecology Program. She has also created rainwater gardens at University of New Mexico and the Pueblo of Isleta. Basia's international water projects can be found in her book, Water Library, University of New Mexico Press, 2007. For more information about the artist visit http://www.basiairland.com/bio/.



Top: Desert fountain. Bottom: stormwater catchment system on the roof of the museum.

Location & Directions

Albuquerque Museum
2000 Mountain Road NW
Albuquerque, NM 87104

The fountain is located in the back internal sculpture atrium inside the museum.

Access

No special arrangements are required to view the fountain, which can be seen during normal museum hours (Tuesday through Sunday 9am—5pm). Museum entrance is normally $3, but is free each Sunday morning and the first Wednesday of each month.

New Mexico Court of Appeals

Developed By

NCA Architects (Tom Wilber) and Lees-capes (Milton Laughing)

Type of LID

Stormwater capture and use for green roof

Description

The new New Mexico Court of Appeals building, completed in 2009, features a stormwater storage system used to irrigate a green roof. It is one of the largest such installations in the Southwest. Stormwater is caught from a nearly 10,000 sq. ft. section of the roof and stored in an 8,000 gal. cistern next to the building. When needed, the water is pumped to a different, 3,000 sq. ft. area of the roof landscaped with native xeric plants.

The system has been in operation for less than a year and there have been several management and design issues. During a monsoon (often a ¾in. or 1in. event), the water exceeds the cistern capacity. Runoff includes silt and other debris. After initial installation, a gravity-fed trash-tank and a silt-screening chamber were added to the system to prevent clogging. During peri-

ods of low precipitation cistern water must be augmented with municipal water. From time to time it is necessary to churn the water to prevent algae growth, etc.

Location and Directions

Court of Appeals
2211 Tucker NE
Albuquerque, NM 87131

Access

To visit the green roof, please call ahead and schedule a time with Judge Bustamante's assistant at (505)841-4618. The Court is open Monday through Friday, 8am to 5pm.

Top: Layout and preparation for the green roof.
Middle: 8,000 gal. cistern.
Bottom: gravity-fed trash tank.

Top: Current condition.
Bottom: Proposed future condition.

The Hahn Arroyo Project, Phase 1

Developed By
AMAFCA and City of Albuquerque

Type of LID
Landscape watering using treated storm-water

Description
The project will replace the aging channel lining of the arroyo with a new, more esthetic and naturalistic concrete channel while incorporating stormwater quality and harvesting elements and expanding on the multi-use aspects of the corridor. Stormwater collected from the channel is passed through a treatment manhole and distributed by gravity flow to cisterns for distribution to the surface for irrigation of landscape nodes within the corridor.

Location and Directions
Drive east on I-40 to San Mateo, north on San Mateo to Comanche, east on Comanche to Montgomery Park (approx. ¼ mile). You can park in the parking lot and walk the channel upstream. At present the channel corridor is in its original condition.

Access
The site is accessible to the public at all hours.

Parkway Storm Drain

Developed By
AMAFCA

Type of LID
Landscape watering using treated storm-water

Description
The project replaced an earthen channel with large diameter storm drain and filled in the drainage corridor providing pedestrian access to the site. Stormwater collected by curb inlets at a street crossing is passed through a stormwater treatment manhole and distributed by gravity flow to the surface to irrigate landscaped areas.

Location and Directions
Drive west on I-40 to Unser Blvd., turn north on Unser Blvd., then west on Ladera Dr., finally south on Parkway Drive. Access to the corridor is off of Parkway Dr. between Lynnhaven Pl. and Somerset Dr.

Access
The site is accessible to the public at all hours.

Before reconstruction.

After reconstruction.

SSCAFCA Office Building

Type of LID
Rooftop capture for landscape watering, pervious pavement, on-site ponding.

Description
Four cisterns are in place at the SSCAFCA office building to capture almost 20,000 gal. of rainwater from the approximately 4,000 sq. ft. rooftop area.

Location and Directions
SSCAFCA
1041 Commercial Dr. SE
Rio Rancho, NM 87124

Take I-25 to Exit 232, Paseo del Norte west. Turn right onto Golf Course Road. Turn left onto Southern Blvd. After passing Unser Blvd, turn left onto Commercial Dr.

Access
The SSCAFCA office is open 8am—5pm Monday through Friday; however, visitors can see the ground-level works at any time. During the LID conference (March 23-24, 2010), SSCAFCA staff will be available at (505) 892-7246 to answer questions about the site.

Top left: 4,600 gal. cistern.
Top right: Three new cisterns total capacity over 15,000 gal. used for landscape watering.

Above: on-site ponding reduces runoff.
Right: pervious parking lot and small catch basins for infiltration.

NOTES

NOTES

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Green Infrastructure Low Impact Development in Arid Environments