

Let's Go Hydro-Local!



2015 ANNUAL REPORT

You Make it Possible: **GOING HYDRO-LOCAL**



"Go Local"—you've been hearing this phrase for years now. A locally-focused lifestyle is good for the planet and builds stronger communities. Many of us strive to live by these words by shopping at local businesses, eating local food, and supporting local artists and tradespeople. This makes a lot of sense—and now, Watershed Management Group wants you and your neighbors to "use local water."

Huh?

Trust me, I understand your confusion. This isn't about using tap water instead of bottled water (though I hope you're already doing that!). Going local with your water means using the water resources that come from your own watershed. Unfortunately, many of us in the West depend on water being piped in from hundreds of miles away through our water utilities. Not only is this expensive and inefficient, it robs precious water supplies from another watershed where it is equally needed.

Making this shift may sound challenging, but each of us has the power to change this paradigm. With your support, we are mapping out the path to a local water future. Read about WMG's latest trend of "Hydro-regionalism" and break down the numbers with our Sabino Creek Flow budget. Finally, I hope you'll be inspired to learn what our Co-op members, donors, and partners are doing to help advance this powerful movement.

Locally yours,

A handwritten signature in blue ink that reads "Lisa Shipek". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Lisa Shipek
Executive Director

Board of Directors

Bill Wilkening, President
Joan Hall, President-Elect
Jennifer Mills, Treasurer
Georgia Ehlers, Secretary
Mead Mier
Jo Miller
Shirley Papuga

Staff

Lisa Shipek, Executive Director
Sarah Brown, Co-op Coordinator & Communications Assistant
Trevor Hare, River Restoration Biologist
Lindsay Ignatowski, Program Coordinator & Development Associate
Sky Jacobs, Administrator & IT Manager
Brad Lancaster, Watershed Specialist
Joaquin Murrieta-Saldivar, Cultural Ecologist
Rudy Poe, Projects Director
Karilyn Roach, Community Relations Specialist
Catlow Shipek, Policy & Technical Director
Kieran Sikdar, Water Resources Engineer
Joe Silins, Water Harvesting & Construction Specialist
Emma Stahl-Wert, Sonoran Landscape Specialist
Stephen Thomas, Grants & Events Coordinator
Anna Tyler, Water Harvesting Crew Member
Ryan Wood, Program Manager

Annual Report Credits

Writing & Editing: Lisa Shipek, Stephen Thomas, Karilyn Roach, Lindsay Ignatowski, Catlow Shipek
Graphic Design: Cero Wood Graphic Design, Inc.

Watershed Management Group develops and implements 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.

Get to Know WMG's Policy Platform: **HYDRO-REGIONALISM**



Catlow Shippek and Trevor Hare map out WMG's hydro-regional approach for the Sabino Creek watershed.

There's a hip, new environmental buzzword on the scene: Hydro-regionalism. Recently coined by WMG, this term refers to the principle of meeting a region's water needs with renewable supplies from the local watershed. Our hope is that this concept catches on, far and wide, to promote the “Golden Rule” of healthy watersheds—that is, a region should balance its water demands with its own supply, rather than depleting the resources of another watershed.

What does Hydro-regionalism look like in the Tucson Basin?

WMG has set an audacious vision to restore flow to Tucson's springs, creeks, and rivers. Hydro-regionalism is at the foundation of our policy platform to achieve this vision.

Most of Tucson's municipal water is imported from the distant Colorado River, more than 300 miles away. The remaining supply comes from locally-pumped groundwater. Both of these sources are problematic; importing water is energy-intensive and costly to deliver, while over-pumping of groundwater has historically depleted our aquifers, drying up our creeks and rivers.

The question, then, is how can we reduce our dependence on Colorado River water while protecting our groundwater supply? Put simply, this will require a paradigm shift in how we view, manage, and use water. Thankfully, Tucson is well on its way to making this shift and managing water in a sustainable way. We are leading the nation in water harvesting, green infrastructure, and native landscaping. To build on these successes and set the standard for hydro-regionalism, Tucson needs a diverse water portfolio of renewable and recycled water supplies coupled with strong conservation programs.



WMG's Catlow Shippek and Sabino Creek—area homeowners enjoy the fall colors and flow during a creek assessment in November.

What are renewable supplies for Tucson?

Rainwater and stormwater are our most abundant renewable water sources. Consider this fact: more rain falls on the city of Tucson in one year than the entire amount of water the city uses from the tap! If properly harvested, this free resource could significantly reduce our demand for pumped or imported water. **Groundwater can also be a fully renewable water supply;** if pumping is limited to the amount of water that naturally recharges through the soil on an annual basis, the levels of this finite resource will remain stable and help restore flow in our riparian environments. Finally, recycled water sources are a critical piece of a balanced water budget. Greywater and reclaimed water, for example, can be used for irrigation, reducing the strain on municipal supplies.

Modeling Hydro-regionalism at the Living Lab

Of course, you don't have to take our word for it. As with all bold ideas at WMG, we are walking the talk and leading by example. Hydro-regionalism is in full effect at our Living Lab and Learning Center, where we are meeting 100% of our water needs with renewable supplies: rainwater, greywater, and stormwater. By harvesting and recycling the water that falls or flows through our property, we have declared our water independence and kicked the habit of tapping the distant Colorado River and draining our aquifers.

By preparing a water budget for our Living Lab, we were able to ensure that the numbers add up before turning off the city taps. Now we have the hard data to prove that renewable water can supply all our needs, both inside and out—including native pollinator gardens; a lush food forest with fruit trees and seasonal vegetables; rainwater showers; drinking water for staff and visitors; and more!

Going Hydro-local, one sub-watershed at a time

With our Living Lab as a working model, WMG is helping homes, businesses, neighborhoods, and entire watersheds begin to make this powerful shift. With our Restore Sabino Creek campaign underway—which we recently expanded to the Tanque Verde region—we are taking this message of water independence to people throughout the Tucson Basin.

Again, the first step is preparing a water budget—this time for the Sabino Creek watershed. Check out the next article to understand what a water budget at this scale looks like.

We've Got a Plan to Ensure Year-Round Flow in Sabino!

Since the 1950s, Lower Sabino Creek has experienced declining groundwater levels and reduced stream flow. As much as we'd like to "wave a wand" and bring perennial water back to Sabino Creek, a river does not flow by magic. There is hard science involved—and we can get a clear picture of the dynamics at work by examining the water budget of the watershed. Like any good budget, it starts with a reserve and has inflow and outflow. In this case, the reserve is the groundwater level, which needs to stay stable to support flow in the creek.

This flow budget was developed by our technical wonk, Catlow Shippek, with input from various partners including Arizona Department of Water Resources, Pima County Office of Sustainability, Metro Water and Tucson Water utilities, and the Community Water Coalition.

Flow Budget for Lower Sabino Creek

Median Annual Groundwater Supply	Acre-Feet per Year
Rain falling on the Sabino watershed feeds Lower Sabino Creek and recharges the groundwater directly through the river channel.*	4,050
Total Supply	4,050 ac-ft
Current Estimated Groundwater Demand	Acre-Feet per Year
Metro Water utility wells	860
Tucson Water utility wells (ceased pumping in Sabino Creek area by 2000)	0
Large wells (30 non-exempt wells)	480
Small wells (117 exempt wells)	59
Riparian vegetation water demand (evapotranspiration)	1,320
Groundwater outflow (water leaving Sabino Creek as sub-surface)	300
Total Demand	3,019 ac-ft
Surplus water for recharge or flow	1,031 ac-ft

Breaking down the data, there's some good news: Sabino Creek currently flows in years with above-average rainfall. This is due to recent recovery in groundwater levels thanks to increased conservation by local residents and increased flow in wetter years. Tucson Water played a proactive role in the recovery of groundwater levels when they ceased pumping from the Sabino area in the mid-1990s. After 60 years of steady decline, it is encouraging to see these efforts already making a difference in restoring groundwater levels.

WMG is working with Sabino-area residents to create a stewardship plan to ensure the full recovery of Lower Sabino Creek's perennial flow. Our flow budget shows we need to reduce our current groundwater demand by 11% to support flow during drier years. In addition to overall water-use reduction, we need to focus our outdoor conservation efforts during the hottest months of the year (March – June), when the water balance deficit is greatest.

We may not be magicians, but with our data and on-the-ground strategies pointing the way, the fantastic sight of a free-flowing Sabino Creek seems more realistic than ever!

*This estimate is based on 70-year median of recharge estimates from the Tucson AMA model. Recharge varies annually based on rainfall and channel runoff.

Tapping into Abundance with the WMG Co-op

For WMG Phoenix Co-op member Kim Afinowich, living sustainably comes as second nature. As a child, her family lived in Ethiopia where she grew up conserving and reusing water out of necessity. Now Kim and her husband are applying these same ethics and principles to their home in the Phoenix desert—and getting abundant results!

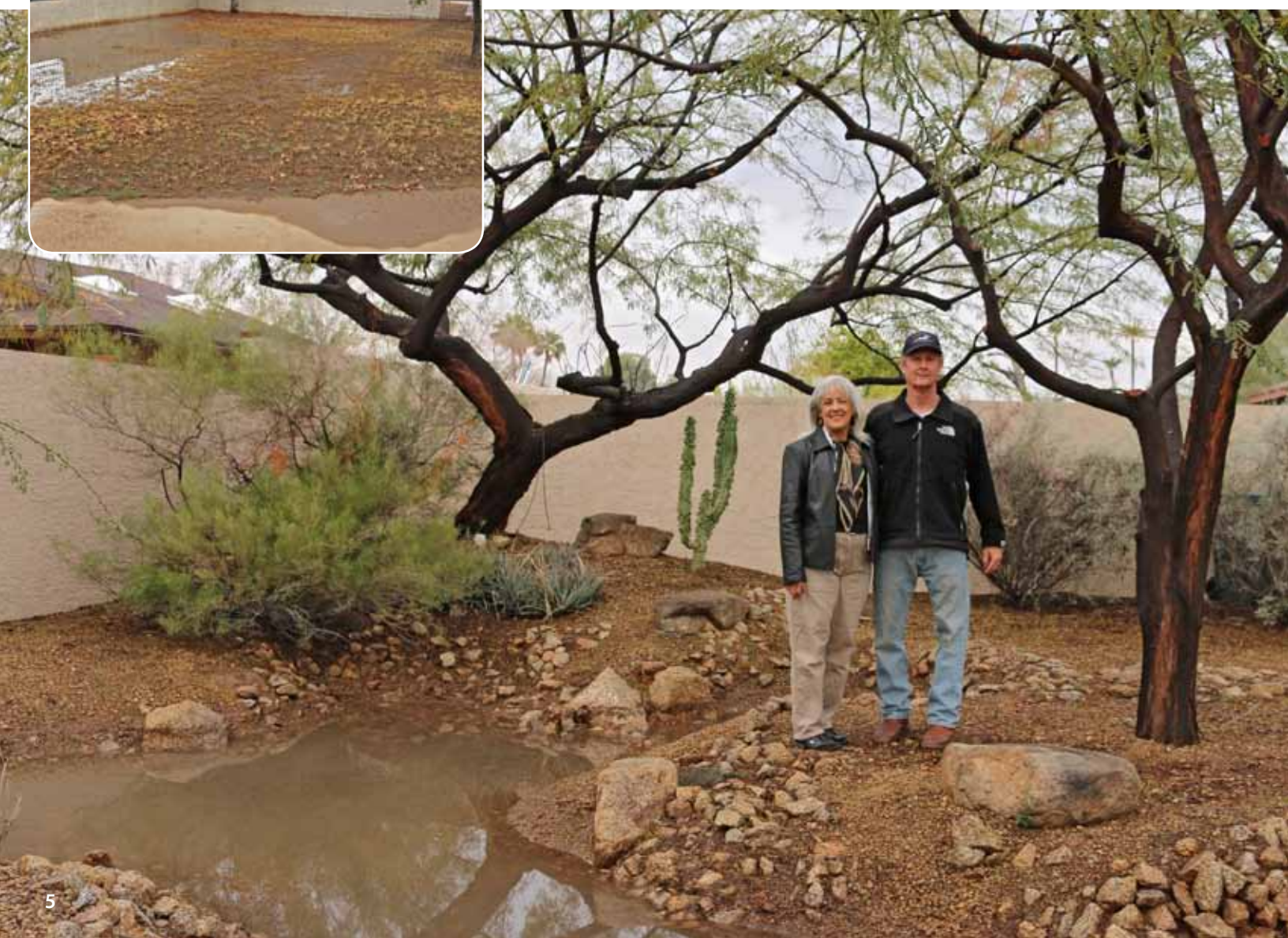
When the couple purchased their one-acre property in 2003, they knew that the water-hungry grass lawn had to go. They hired contractors to replace 1,000 square feet of turf with a vibrant rain garden featuring more than 30 native trees. Kim worked with family members and the Phoenix Co-op to expand on this work, adding a laundry-to-landscape greywater system along with more basins, swales, and an infiltration trench to reduce stormwater pooling.

The native landscape now flourishes almost completely on water that falls from the sky or is recycled from the washing machine. A beautiful abundance of edible and native plants adorn the property, including orange and fig trees, mesquites, palo verdes, cassia bushes, and blue agaves. The trees cast cooling shade on the driveway and the north side of the home.

Flooding used to be a threat on Kim's street, but now her basins capture the stormwater and sink it into the ground to nourish the gardens. Kim is thrilled to see these features in action and understands how they benefit the environment in a holistic way: "With the water that's collected in my basins, and my soil acting as a sponge, whatever my plants don't use helps to recharge the aquifer," she exclaims. "How cool is that?"



Top left: Before: Water-hogging Bermuda grass lawn with flooding problems After: Kim and Jim Afinowich enjoy watching their water-harvesting basins capture and infiltrate the rain to support their lush, native landscape.



Tucson Co-op Volunteer of the Year

Anna Tyler

Anna is not one to shy away from diving in and getting her hands dirty. She first donated to WMG in 2013, but it was when she got involved in with the Green-Living Co-op that her passion was really sparked. She volunteered at her first WMG Co-op workshop on January 24, 2015—and participated in 16 more before the end of the year!

Anna says, “I support WMG with my time and money because of their efforts in conservation, education, and community building. I volunteer in the Co-op because I enjoy being part of the transformation from a “conventional” yard into an ecologically vibrant, water-harvesting, interesting and welcoming space—plus I meet great people and learn something new at every workshop.”



Phoenix Co-op Volunteer of the Year

Einav Henenson

A graduate of WMG’s Water Harvesting Certification course and Water Harvesting Stewards program, Einav has shared her knowledge at over a dozen WMG workshops since 2013. She has been an integral part of helping maintain WMG Phoenix’s Primera Iglesia demonstration site by leading tree pruning and teaching other volunteers correct techniques for pruning, as well as tool care and cleaning.

Einav says, “When I volunteer with WMG, I know that I’m helping to make our valley a bit more sustainable, one basin at a time. With like-minded people who care, we can make a positive change around us. To me, it’s not only about harvesting water; it’s also about creating a community, spending time with great people, and being inspired by everybody’s commitment to the environment and to our future.”



Thank You 2015 Donors!

Capital Campaign Donors

Kim & Jim Afinowich
Sarah Brown
Elva De La Torre
Joan Hall
James & Amy Kirchoff
Kieran Sikdar & Corin Marron
Georgia Ehlers & Robert Marshall
Amy McCoy

Kevin Dahl & Bam Miller
Jennifer & Dan Mills
Karilyn & Charlie Roach
Lisa & Catlow Shipek
David J Stevenson
Stephen Thomas
Carol Townsend & Charles Cole
Betsy & Bill Wilkening

Donors

Nate Abramson
Richard Adkins
Lori Adkison
Joaquin Murrieta & Christian Aguilar
Laura Alexander & Fabian Alfie
Ivy Schwartz & Kathy Altman
Melissa Amarello
Barbara Amodei
Judith Anderson
Corissa Anderson
Diane Hanover & Mark Andersson
Shane Andreas
Clifford & Jeanette Arnquist
Steve Arnquist
Jaime Arrieta
Angela Ashton
Leslie Austin
Kelly Badeau
Wanda K Baker
Chris Baldyga
Clifford Ball
Jessica Hersh-Ballering & Nick Ballering
Barbara Hall & Dick Barber
Lisa Barnes
Tamara Barnett
Kenny Barrett
Ann Barry
Mary Bayless
Ginny Beal
Jennifer Becker
Janice Beckerleg
Madeline Kiser & Oscar Beita
Mikaela Bell
Bruce Berg
Catherine Fox & Eric Bergman
Joel & Linda Biederman
Theresa & Robert Bingham
Karl Newell & Wieke de Boer
Katie Bolger
Heidi & Stephen Bonnist
Lisa Bowers
Joyce Brabaw
Catherine Bradley
Roger Braegelmann
Christopher & Coleen Brooks
Mary-Laura & Richard Brooks

Nancy Brown
Christie & Michael Brown
Alice Brown
Sarah Brown
Stephen Brown
Guy Brunt
Ross Bryant
Julie Burguiere
Shea Burns
Patricia & Richard Burns
Nate Byerley
Jeanne Calhoun
Paul Calver
Ariana & Evan Canfield
Jose Manuel Perez Cantu
James A Carpenter
Alba Carter
Richard Chagnon
Christopher Chelpka
Margaret Clark
Mary Clark
Jennifer & Calvin Clark
Terry Closs
Van Clothier
Jeff & Nancy Coker
Melanie & Kyle Colavito
Carol Townsend & Charles Cole
Beverly Coleman
Kaylee Colter
Catherine Compagno
Chris Coniaris
Jeanne & Doug Cook
Chrystina Cook
Craig Coronato
Liza Lopez Corral
Catherine Crawford
Jennifer Jacobs & Dean Crothers
Amy Crown
Lindsey Curé
Debbie Curley
Andrew D'Arezzo
Melissa Daniels
Katherine Davis
Madeleine DeBlois
Dino & Elizabeth Murfee DeConcini
Nancy Laney & Timothy Dennehy
Suzanne & Eric Dhruv
Kylie Rogers & Adam Dick

Stewardship Circle

Kim & Jim Afinowich
Julie Hall Allison
Launi Andrews
Robin & Bill Charles
Patricia DeWitt
Nancy A Evans
Lisa Ealy & Mark Fleming
Mireille Nashimoto & Phil Free
James & Amy Kirchoff
Peter & Dawn Larmer
Merry Lewis
Donna Lines
Jennifer & Dan Mills
Stacey & Joe Plassmann
Mark & Leanne Ragel

Lisa & Catlow Shipek
Kieran Sikdar & Corin Marron
Dorene & Kalyan Sikdar
Tina & Thomas Sleeper
John Stahl-Wert
David J Stevenson
Ileana & Charles Swanson
Ed Thompson & Julia Gove
Katherine Waser
Betsy & Bill Wilkening
Ryan Wood & Ericka Cero Wood
Jeff & Connie Woodman
Alan Ziblat
Alexander & Joan Ellen Zucker

Caroline Dobler
Jazz Dolan
Michael Duer
Neelam & Suresh Duggal
Gabriella Duncan
Charles Dunn
Brenda Earle
Gene D Einfrank
Bill & Kay Ellett
Julie Evans
John Shepard & Carol Evans
Keith & Tamara Evert
Ron & Bonnie Ewing
Lisa Cozzetti & Don Eydenberg
Larry Fallis
Ethelyn Fennell
Julie Ferreira
Danielle & Louis Fidel
Lisa & James Fiedorek
Lynn Fleischman
Victoria & Mark Foster
Jan Fox
Julie & Andy Frank
Margot Garcia
Patricia Gehlen
Lucy Del Giorgio
Nicolas Siemsen & Bonnie Goble
Ross Zimmerman & Pamela Golden
Anne Gondor
Dave Goodrich
Elizabeth Butler & Bill Gorrell
Andrew Gorski
Colleen Graham
Paul & Jill Grimes
Anna Groff
Maite Guardiola
Ann Hadley
Fred J Haggerson
Krista Hansen
Trevor & Janet Hare
Barbara Harrison
Leo Hartke

Bruce Plenk & Patti Hartmann
Karin Have
Tricia & Casey Hawkins
Einav Henenson
Victoria Hermosilla
Heather Hiscox
Larky Hodges
James Holley
Debbie & Chris Honan
Herrera Household
Cheryl Hunter Houser
Devlin Houser
Shari Huffaker
Debra Huffman
Janice Hughes
Robert & Jo Anne Hungate
Robert Hunt
Kathy Gerst & Brian Hunter
Lysistrata Hall & Erik Huntsinger
Karen Hyun
Terese & Peter Ireland
Chloe Beauford & David Iwaniec
Alexander Jacobs
Rachel Jacobson
Catherine Jacques
Jennifer Arnold & Glenn Johnson
Emily Yetman & Ian Johnson
Cidney Jones
Shanna Weagle & John Jorgenson
Stephen B Hughes Jr.
Carl Kanun
Curt Bradley & Jennifer Katcher
Molly Kehr
Jeff & Kathleen Kennedy
Paige Valdiserri & Timothy Kennedy
David Kiefer
Elizabeth Kinsworthy
Kim Knebel
Kelly Krieger
Joanie Sawyer & Robert Kulakofsky
Laurel Lacher

Flow Donors (Monthly Giving)

Edith Bailey
Karen Lutrick & Carl Case
Jesse Coughlin & Justin Orkney
Elva De La Torre
James & Florencia DeRoussel
Raul Espinoza
Steve Franks
Lisa Gardner
Dustin & Heather Garrick
Joan Hall
Elizabeth & Russel Healy

Lynn & Greg Helseth
Holly Hope
Deborah Hodges
Lindsay Ignatowski
Carol Keck
Himat S Khalsa
Marti & Ron Kuykendall
Vicki Lutrick
Andrea Martin
Amy McCoy & Brian Anderson
Sandy & Bob Mier

Daniel Moss
Regina Mullen
John Murray & Judith Terlizzi
Susan L Oates
Diane E Phillips
Bea & German Quiroga
Jon Ralston
Benjamin Renner
Martha Retallick
Karilyn & Charlie Roach
Wil & Mai Ho Schaefer

Ruby Sheffer
Julie St John
Jan Staedicke
Belle Starr & Bill McDorman
Victoria Steele
Stephen Thomas
Danica Tuxbury
Katie & Forest Vornauf
Jennifer L Wadsworth
Charlene Westgate & John Scoggin
Claire Zugmeyer & Sky Jacobs



Donor of the Year David Stevenson

Having lived in Tucson since birth, David knows intimately the power and importance of water and has come to value WMG's role in protecting this most precious resource. Over the years, he has shown his support for WMG in a variety of ways: as an active Green-Living Co-op member and host for Co-op workshops, graduate of our Water Harvesting Certification course, member of WMG's board of directors from 2012 – 2014, perennial volunteer at tabling events, baker of amazing solar-oven chocolate chip cookies, and champion of water-harvesting far and wide.

Perhaps most impressive is that David has donated to every WMG fundraising campaign since 2010. And most recently, he came on board as a donor to the capital campaign to develop our Living Lab and Learning Center in central Tucson. David says, "The Living Lab provides the best examples of water-harvesting and compost/soil processes in Tucson. I support WMG's capital campaign so the Living Lab can continue to grow and provide education to all who want it." Thank you for your support David!

Katya Peterson & Pierre Landau
Angela Cazel-Jahn & Robert Larson
David Schaub & Laura Laughran
Peter Lautzenheiser
Ken Laux
Limell Lawson
Cheryl Legan
Robin Lewellyn
Elaine Lim
Joan Lisi
Leslie Cox & John Lovegrove
Chris Lueck
Peter Luitjens
Holly Hill MacAdam
Rachel Ann & James MacAdam
R. Bruce MacAdam
Sally Sherman & Art MacDonald
Aleck Mackinnon
Wendy Burk & Eric Magrane

Sarah Mar
Jeannette Mare
Amy Markstein
Renee & Edward Marrano
Elizabeth & Jim Marron
Michael & Kathy Marron
Tiernay Marsh
Georgia Ehlers & Robert Marshall
Emily Brott & Christopher Martin
Patrick & Loraine Martin
Devorah Jacobson & Margaret Mastrangelo
Sarah Mauet
Bill & Maria Maytorena
Carolyn McCants
Susan & Mitchel McClaran
Jan Schwartz & Judith McDaniel
Lisa McDaniel-Hutchings
Merrilee McFarland
Nelma & Russell McGee

Jesse Zoernig & Cecile McKee
Sarah Tarver-Wahlquist & Robert McLane
Sarah Mead
Nancy Warshawer & Bob Mellon
Sarah & Scott Mencke
Darcy Mettler
Christian Meuli
Judy Mielke
Kevin Dahl & Bam Miller
Cyrus Miller
Joetta Miller
Mary Miller-Crews
Rebecca Minor
Randy Serraglio & Louise Misztal
Charles V Mix
Jacqueline Moxley
Cathy Mullan
Shirley Muney
Axhel Munoz

Mark Murphy
David Murray
Kirstin Neff
Constance Negley
Matthew Newton
Maureen & Raymond Noeth
Carolyn O'Connor
Rosaleen O'Gara
Donna O'Toole
Ruth Omick
Valerie G Osborne
Deborah Oslik
James Ostrem
Wes Oswald
Amber Pannell
Shirley Papuga
Rebecca Patterson-Markowitz
Patricia Perry
Layne Peters
Jason Phipps

2015 Donors continued

Joy Phoenix
Denise Piazza
Rodolfo Poe
Steve S Poe
Dana Price
Tamara Prime
Jane Prinz
Jennifer Psillas
Kate Radosevic
Cathleen Rainey
Kalyan & Vidya Raman
Gene & Jean Ramsay
Paula Randler
Shipherd Reed
Paul Reese
Ivy Pike & Geoff Reeves
Kelly Rehm
Nancy Riccio
Barbara Richards
Laurie & Fraser Richards
Brian Richter
Emily Ricketts
Jamie Roach
Ronni Robles
Malaika Roemer
Ariel Rosenthal
Richard Ross
Laura & Mark Royal
Julie Rustad
Rebecca Safford
Stuart Sage

Todd Sahl
Amy Salvato
Monica Mueller & Jim Sauer
Kenneth Allen Schachter
Logan Schaub
Susan & Mark Schildt
Marci Tarre & Chris Schmidt
Pam Shack
David Shambach
Robert Sheldon
Natalie & Eric Shepp
Junxiao Shi
Skye Siegel
Amit Sikdar
Joseph Silins
Marvin Silins
Richard Roati & Susan Silverman
Marilyn K Simmons
Monica Nicholas & Jeff Simpson
Pierre Bondoumbou & Erielle Sita
Anna Tyler & Cara Slutter
Elizabeth & Gregory Smith
Victoria Ligon & Travis Smith
Karolyn Garcia Smith
Linda Smith
Shelly Hawthorne Smith
Martin Nederpelt & Laura Smith-Nederpelt
Kristina Sigrid Solheim
Evren Sonmez
Kari Spencer

Michele Spiller
Emma Stahl-Wert
Vince & Danielle Steiner
Donna Steinfeldt
James & Janice Stevenson
Sheila Ranganath & Dave Stewart
Linda Arlene Stigen
Janet Zampieri & Patrick Stirling
Susan Stokes
Maynhia Stott
Melissa Strasser
Anne Subotich
Tory & Jason Syracuse
Frederick Tack
Michael Tamarack
Darryl & Mae Tang
Walter Tannert
Bruce Taubert
Peggy Ellen Thomas
Josephine E Thompson
Craig Thomsen
Shannon Thorn
Teri Thorpe
Cindy & Dan Tolleson
Gay W Townsend
Thomas Tress
Julia Fonseca & Dale Turner
Paula & Martin Turner
Lucas Tyler
Mark & Elizabeth Valentine-Day
Anne J Veague

John Villinski
Tekla Vines
Margaret Wade
Julie & David Wadsworth
Susan Waites
Dietrich Walker
Nancy B Wall
Cynthia Wallace
Niki VonHedemann & Adam Walters
Charlie & Ronnika Ware
Karen Warren
Mary Price & Nickolas Waser
Sally & Dan Weaver
David Wegner
Chris and Wendy Wendel
Jesse Westad
Gerry & Liz Whitaker
Linda J White
Stephanie Ann Whited
Keith & Sam Wilburn
Chris Wilke
Kevin Willard
Susan K Willis
Natasha Winnik
Matthew Winston
Beth Woodin
Louis Woofenden
Michele Worthington
Loraine Zagula
Claudia Zimmer



Making a Splash in Tucson: Catlow Shipek Receives “40 Under 40” Award

Much of the praise and recognition for WMG last year can be credited, of course, to the efforts of our hard-working staff. One staff member in particular—WMG’s Policy and Technical Director Catlow Shipek—enjoyed some of the spotlight as one of Tucson’s “40 Under 40” award winners for 2015. This prestigious award honors young leaders who are making a difference in the community.

As one of WMG’s founders and a senior staff member, Catlow has been an early pioneer of hydro-regionalism in Tucson. His contributions to the local community exemplify many of WMG’s most notable successes—breaking new ground with water-harvesting projects throughout Arizona and into Sonora, Mexico, working with city leaders on progressive policies to protect and restore our watershed, and opening minds to the soil-building benefits of composting toilets. And now, Catlow is lending his talent to WMG’s latest bold initiative: to restore Tucson’s heritage of free-flowing desert rivers. Congratulations, Catlow, and thank you for your visionary work!

Catlow teaches WMG docents and interns how to create healthy desert soils.



When WMG Wins, We All Win!

We like winning things at WMG, so 2015 was a great year!

It started with winning big money on Arizona Gives Day. Thanks to 200+ amazing donors, we collected \$44,015 in donations and won an additional \$15,000 prize for raising the most of dollars of any mid-sized nonprofit. This financial boon helps maintain our core programs and allows us to grow in other areas, like expanding our visionary work to bring flow back to our desert creeks and rivers.

FUN FACT:

The Living Lab's rainwater catchment exceeded our water demands in 2015—recharging an estimated 11,000 gallons of water into the aquifer!

Then in April, we rocked the annual Bike Fest Tucson Workplace Commuter Challenge, taking first place for the overall workplace competition with WMG staff logging 448 bike trips! And in November our bike and bus use won us the Blue Skies Corporate Challenge for Most Pollution Reduced from Pima Association of Governments.

Our winning year culminated with recognition for something we already knew—WMG's Living Lab and Learning Center is Arizona's Greenest Workplace.

The annual challenge, hosted by Mrs. Green's World, judges entrants on how well they embody the three Rs—Reduce, Reuse, Recycle. At the Living Lab we go beyond the three Rs to not just minimize negative impacts on the environment but create a net positive impact: using composting toilets to build our soil; generating power with solar panels; and meeting all our water needs with rainwater that falls on site.

Of course, all this glory wouldn't be possible without our donors, volunteers, and supporters. Thanks for an amazing year!

WMG is known for water harvesting—but we're leading the charge in promoting alternative transportation, too! We received some big recognition in this realm in 2015. First, on Earth Day, the League of American Bicyclists awarded us gold-level Bicycle Friendly Business status.



FUN FACT:

Our 2,036 miles of bike commutes in April 2015 kept 1,653 lbs of CO2 out of the atmosphere—and that's just one month!





School Green Up Helps Cool Hottest

Phoenix's hottest neighborhood just got a lot greener, thanks to a WMG water-harvesting project at the Wilson Elementary School in central Phoenix.

Temperatures are up to 15 degrees hotter in the area around the school than in communities at the city edges bordering the desert. To combat the urban heat island effect, Wilson Elementary is working with WMG to cool their landscape and surrounding streets with creative, shade-producing green infrastructure features.

WMG united 50 community volunteers for a schoolyard green-up project to transform the barren landscape into a lush desert garden featuring more than 140 native and desert-adapted plants. A water-harvesting arroyo designed to mimic a natural desert wash collects and sinks rainwater into the soil to nourish the vegetation. Combined, the arroyo and surrounding basins can capture nearly 53,000 gallons of rainwater each year!

Befitting a school project, education and student involvement were central to the experience. Wilson School students took an enlightening field trip to ASU's Boyce Thompson Arboretum to learn about native trees and

vegetation, while WMG's Ryan Wood shared knowledge on the hydrologic cycle and water budgeting tips for landscape plants.

Along with transforming the schoolyard lot, the project has nurtured new ideas and skills in the participants. As Wilson School science teacher Nichole Spencer observed, "The students learned so much about the procedures for proper planting." Their excitement with this new-found knowledge is also rippling out, she added, with rainwater harvesting being mentioned in other projects.

Student Xavier Cerpa enjoyed learning how to calculate for rainfall in budgeting water for plants. He also was fascinated to discover that "greywater from dishes and bathtubs can be used to water plants!" Completed in partnership with the Support Sky Harbor Coalition and the City of Phoenix—and funded by a grant from the National Fish and Wildlife Foundation—this project is a great example of the power of collaboration to improve our communities. We will be using additional funds from the grant to expand on this project in the spring of 2016 to further develop the Wilson schoolyard into a cooler, greener, and more inspiring place.

The arroyo and surrounding basins can capture nearly 53,000 gallons of rainwater each year!



Neighborhood in Phoenix

Students and their families pitch in to create rain gardens at Wilson Elementary School.

Phoenix Donor Spotlight **Launi Andrews**

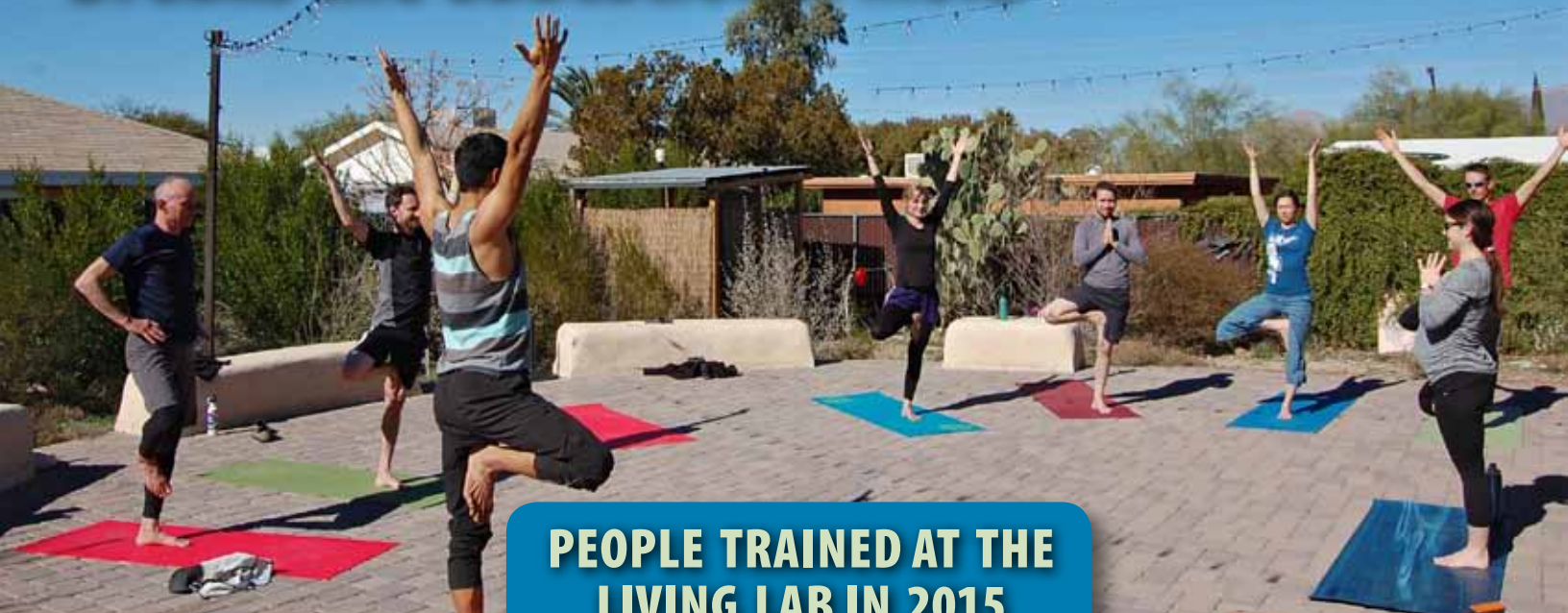
WMG monthly donor Launi Andrews has been involved with WMG's Phoenix branch since 2012. After attending workshops and training programs, Launi held a workshop at her own home to install a water-harvesting rain garden. On why supporting WMG's work is important to her, she says, "For me, our connectivity and relationship with our planet is profoundly important on a multitude of levels. Teaming up with WMG was a next step in my own personal evolution."

"We're like raindrops in a pond, and if you can visualize the ripples of connectivity—and embrace the infinite power that each of us holds to make a difference—when you couple it with cooperative and collaborative measures like WMG it increases that power exponentially, and I love that!"

You can expand the ripple of connectivity like Launi by joining our monthly donor program, Flow, to help build a verdant valley all year long.



Eat, Play, Learn—WMG's Living Lab Breaks the Educational Mold



PEOPLE TRAINED AT THE LIVING LAB IN 2015

Water Harvesting Classes: 350

Living Lab Monthly Tours: 200

Field Studies: 100

Special Events: 1,000

Water Harvesting Certification: 32

Docents and Interns: 16

Stop by the Living Lab during any given lunch hour and you may find us battling for glory in a four-square match (a schoolyard recess favorite) or stretching it out in a yoga class. **On Wednesdays, you'll catch the WMG staff savoring a family-style meal together from our local foods caterer, Tumerico.** Attend one of our unique educational trainings, and you get the best of both worlds—a blend of creative play and sensory experience that is just as essential for learning as studious classroom time.

With its lush outdoor spaces, hands-on demonstrations, and a growing community, the Living Lab and Learning Center makes all of these diverse experiences possible. It is quickly becoming a destination for learning, playing, socializing, eating, and experimenting.

Each month, our most popular classes—the rainwater-harvesting and greywater-made-easy rebate sessions—train dozens of community members in creating more sustainable homes. Both classes utilize the working greywater and rainwater systems on our campus as teaching tools. (And when it's raining, those lucky attendees get to see the systems in action—a magical experience before their eyes!)

For those who wish to explore the Living Lab in-depth, we offer monthly tours on the second Saturday of the month. Tour participants get a true taste of our hydro-regional practices by learning about our water-harvesting systems and sampling a glass of crisp, clean rainwater on tap!

Professionals attending our seven-day Water Harvesting Certification course get many memorable lessons in “walking the talk.” When it's time for a tour of water-harvesting sites around town (led by WMG's own Brad Lancaster), participants hop on bikes instead of piling into cars. Students flow

between the Living Lab's indoor and outdoor classrooms as a central part of their experience. They become immersed in WMG's “Waste Not” ethos and literally become a part of the campus—drinking rainwater, using the composting toilets, and eating food sourced from local farms.

For WMG's latest learning experiment, we decided to team up retirees in our Living Lab Docent program with our University of Arizona interns. Our docents have signed on to help educate the public about the Living Lab during public tours and events. At the same time, we launched WaterWRLD, a year-long internship program for undergrad and graduate students in partnership with the University of Arizona. Recognizing an opportunity for collective learning, we have been bringing the docents and interns together on Friday afternoons for interactive classes on topics ranging from soil stewardship to river restoration. The results? The retirees and college students feed off each other's energy and form a solid team of WMG experts with a wealth of knowledge and perspectives to share!

Grant & Foundation Funding

Alcoa Foundation
Amaterra
American Rivers
Arizona Community Foundation
Arizona State Parks
Arizona State Forestry
Border Environment Cooperation
Commission

Central Arizona Project
Desert Diamond Casino & Entertainment
Fondo Mexicano para la Conservación
de la Naturaleza, A.C.
Jeff & Connie Woodman Foundation
Kaimas Foundation
Kimley-Horn Foundation
Long Realty Cares Foundation

National Fish and Wildlife Foundation
Norcross Wildlife Foundation
Pasqua Yaqui Tribe
Southwestern Foundation for Education
and Historical Preservation
Tucson Water
U.S. Fish and Wildlife Service
Walton Family Foundation

Business Sponsors

5 Points Market
Aravaipa Heirlooms
Borderlands Brewing Company
Caldwell Design
CB Richard Ellis
Cero Wood Graphic Design
Chameleon John
Cheri's Desert Harvest
City of Tucson - Tucson Water
Civano Nursery
David E Shambach Architects
Discounttrue
EcoSense Landscaping, LLC
Edible Baja Arizona
Ethos Rainwater Harvesting

Exo Roast
Fairfax Companies
Food Conspiracy Co-op
Hayden Flour Mills
Hughes Federal Credit Union
Imperial Excavating, LLC (Phoenix)
Julie Originals
KXCI Community Radio
Lil' John's Excavating
Native Seeds/SEARCH
Natural Grocers
Ordinary Bike Shop
Pima County - Department of
Environmental Quality
Premier Printing and Mailing

Pueblo Vida Brewing Company
Queen Creek Olive Mill
Smiling Dog Landscapes (Phoenix)
Storyteller Public Relations
Technicians for Sustainability
Travel Ticker
Treeland Nurseries, Inc. (Phoenix)
Trek Bicycles of Tucson
Trimble SketchUp
Tucson Conserve to Enhance
Tucson Electric Power
Wheat Design Group
Whole Foods

Volunteer of the Year

Janet Taylor (aka Mesquite Pancake Goddess)

Janet Taylor is a woman of many talents and extraordinary energy. And she lends both to WMG in so many ways: as master chef for our annual Edible Shade Mesquite Pancake Breakfast, donor of time and money, dedicated volunteer at tabling events, member of the Stewardship Committee, builder of relationships in the local food and farmers' market community, and presenter and cooking demonstrator at WMG events.

Without a second's hesitation, Janet says it is her "kids and grandkids that mean most to me in this world." It is their future and making sure we leave behind a livable world for them that motivates her. A cookbook author by profession, she believes strongly in the power of food to heal the world and build strong community.

When asked what drives her to be involved with WMG, Janet says, "Besides the fact that WMG staff members are fun to be around and inspiring in their level of dedication, I think connecting people to responsibly-grown, whole foods not only benefits them and their families but can save the planet—and water is a big part of that. The misuse of water by large-scale agriculture and food processing is killing the planet. WMG offers an alternative."





Water Harvesters Without Borders: WMG Grows Its Impact in Mexico

City park employees in Saltillo, Mexico build a sediment trap feeding into a large streetside basin.

Water—and water harvesting—knows no boundaries. **Over the past year, WMG’s Cultural Ecologist Joaquin Murrieta has traveled to 11 different Mexican communities to teach workshops on green infrastructure and build the capacity of local communities there.** Each of these exciting cross-cultural partnerships offered WMG unique opportunities to expand our impact with regional neighbors and share what we’ve learned to improve watershed health in the borderlands region.

This whirlwind year of travel and teaching was sparked by the publication of a Spanish translation of our green infrastructure (GI) manual in 2014. Word spread about WMG as a Spanish-language resource for GI techniques, which led to an invitation to offer a five-day training in La Paz, Mexico in February 2015. About 40 watershed professionals attended the event, representing governments and NGOs from around the country.

Our Mexican colleagues were intrigued by WMG’s success implementing GI projects in Arizona’s cities. Their general response was, “We manage water in rural watersheds, but we haven’t been looking at ways that cities can improve water resources.” Moving forward, an emphasis on the role that urban environments can play in watershed management became a central focus of our Mexico work.



Joaquin leads a state-wide green infrastructure training for public works directors in Coahuila, Mexico.

Partnership Profile

Border Environment Cooperation Commission (BECC)

WMG has always valued the power of collaboration to solve big problems. In this spirit, we have been especially excited to partner with the Border Environment Cooperation Commission (BECC) on several recent projects in Mexico. The focus of this bi-national organization is to enhance public and environmental health in the U.S.-Mexico border region through sustainable projects.

While BECC's scope spans many issues, they have a keen interest in green infrastructure "due to the multiple, simultaneous benefits it provides—environmental, social, and economic." This interest led them to the rainwater-harvesting hub of Tucson, where they held a prominent Green Infrastructure Forum in May 2015. WMG's Joaquin Murrieta attended the event and organized a tour of the Living Lab for conference participants, including BECC officials.

Before long, a partnership was underway with BECC providing outreach and WMG lending expertise for capacity building and training workshops across Mexico. With five projects completed so far and several more in the works, this dynamic collaboration continues to grow—helping to create healthy watersheds and communities throughout the borderlands.

BECC officials pitch in to dig basins at a WMG-led workshop in San Luis, Sonora.



Following the La Paz training, the partnership requests began to stream in. Joaquin, our multi-talented, bilingual ambassador, accepted invitations to speak at conferences, conduct site visits, and lead community workshops to harvest water throughout Mexico. One exciting example was a three-day training for 40 public works employees in the city of Saltillo, where Joaquin guided participants through design exercises and hands-on practice to create lush water-harvesting landscapes in the city's public parks.

We were encouraged to see a common theme of local empowerment emerge; people like taking an active role to solve problems and create resiliency in their communities. In the year to come, we will build on this momentum, returning to Mexico to train more people and help GI practices take root and spread throughout the borderlands.

Partners

Tucson Region Partners

ACE Charter High School
American Rivers
Arizona State Forestry
Arizona State Parks
Borderlands Brewing Co
Center for Biological Diversity
Changemaker High School
Cienega Watershed Partnership
City of Tucson Department of Transportation
City of Tucson Mayor's Office
City of Tucson Parks and Recreation
City of Tucson, Ward 1 Council Office
City of Tucson, Ward 2 Council Office
City of Tucson, Ward 3 Council Office
City of Tucson, Ward 6 Council Office
Coalition for Sonoran Desert Protection
Community Food Bank of Southern Arizona
Community Water Coalition
Conserve to Enhance
Crow Communications Inc
Earth Economics
EcoSense Landscaping
Ecosystem Economics

Ethos Rainwater Harvesting
Exo Roast Co
The Fairfax Companies
Greater Tucson Leadership
Hidden Valley HOA
hydroGEOPHYSICS
Jefferson Park Neighborhood
Jennifer Mills - Wells Fargo Advisors
Julie Originals
Kramer's Kitchen
Lil' John Excavating
Living Streets Alliance
Manzo Elementary School
Metro Water
National Park Service
Native Seeds/SEARCH
Palo Verde Neighborhood
Panagia Theotokos Ecclesiastical Retreat
Peddler on the Path
Peter Howell Elementary
Physicians for Social Responsibility
Pima Association of Governments
Pima County
Pima County Dept of Environmental Quality
Pima County Regional Flood Control

District
Primavera Foundation
Save the Scenic Santa Ritas
Sierra Club - Rincon Group
Sky Island Alliance
Skyline Country Club
The Sonoran Institute
Stantec
Technicians for Sustainability
Town of Marana
Town of Oro Valley
Tucson Association of Realtors
Tucson Audubon Society
Tucson Clean and Beautiful
Tucson Electric Power
Tucson Mountains Association
Tucson Water
UA WaterWRLD
University of Arizona Bureau of Applied Research in Anthropology (Dr. Diane Austin)
University of Arizona Water Resources Research Center
US-Fish and Wildlife Service
Veg in a Box

Phoenix Region Partners

Arizona State University School of Design
Arizona State University School of Sustainability
City of Mesa
City of Glendale
City of Peoria
City of Phoenix Parks and Recreation
City of Phoenix Street Transportation Department
City of Phoenix Neighborhood Services Department
City of Tempe
Desert Botanical Garden
EPCOR Water
Flood Control District of Maricopa County
Goodman Schwartz Public Affairs
Mesa Urban Garden
National Park Service - Tonto National Monument
Phoenix Zoo
Primera Iglesia Metodista Unida

Mother Bunch Brewing
Roosevelt Growhouse
Roosevelt Row Arts District
SunUp Brewing Co
Support Sky Harbor Coalition
Sustainable Cities Network Arizona
State University Global Institute of Sustainability
Valley Permaculture Alliance
Wilson School District

Other Western Partners

City of Las Cruces
City of Sierra Vista, Arizona
Cochise College
Cochise Water Project
JE Fuller Hydrology and Geomorphology
Montana Green Expo
NV5
Stream Dynamics
Water Wise Program, University of Arizona
Cochise County Cooperative Extension

International Partners

George Washington University, India
Women and Water program
US-Forest Service International
University of Arizona - College of Education
Niparaja
Raiz de Fondo
Border Environmental Cooperation Commission - BECC
Fondo Mexicano para la Conservacion de la Naturaleza - FMCN
Instituto de Ecologia del Estado de Guanajuato
Salvemos al Río Laja, A.C.
Fundacion Manantlan para la Biodiversidad de Occidente - MABIO
Comisión de Cuenca del Río Ayuquila-Armería
Center for Latin American Studies - University of Arizona

Financial Report

Revenue and Support

Program income	\$ 439,055
Grants	\$ 199,170
Donations	\$ 237,746
Total support & revenue	\$ 875,971

Expenses

Program services

Community Water Coalition	\$ 7,895
Fee for Service	\$ 71,602
Green Living Co-op	\$ 272,647
Greening Urban Watersheds (Demonstration Sites, Green Streets, Schoolyard, Soil Stewards)	\$ 365,370
Living Lab & Learning Center	\$ 20,366
River Restoration (50 year program)	\$ 28,649
Watershed Technical Trainings	\$ 37,136
Total Program services	\$ 803,665

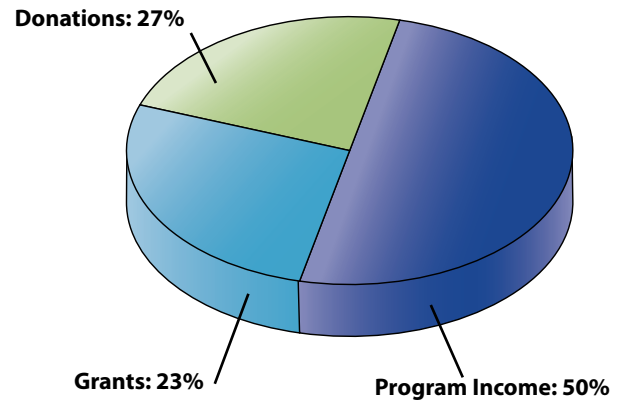
Admin and Fundraising

Administrative	\$ 67,218
Fundraising	\$ 33,248
Total supporting services	\$ 100,466

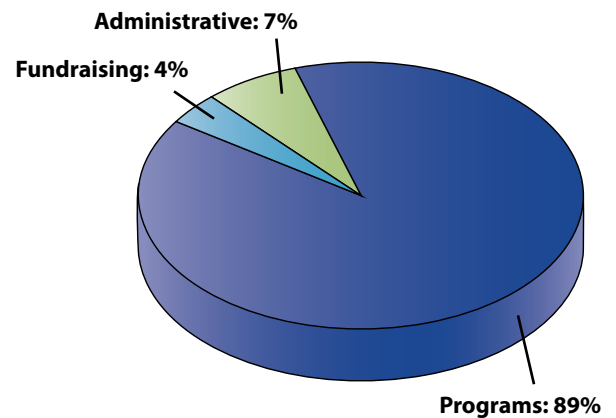
Total Expenses	\$ 904,131
-----------------------	-------------------

**Report for Fiscal Year of Jan 1 - Dec 31, 2015*

Revenue & Support



Expenses



Thanks to you

Watershed Management Group launched a campaign to Restore Sabino Creek for Arizona Gives Day, on April 7th, 2015. We raised the most dollars of any midsize non-profit organization, earning an additional \$15,000 prize. Phoenix program manager Ryan Wood and WMG volunteer Kaylee Coulter accept the prize money!



1137 N Dodge Blvd
Tucson, AZ 85716

THANK YOU FOR GOING HYDRO-LOCAL!

