



2012 Annual Report

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Cover photo: WCO Staff and Volunteers cleaning up Valley Water Mill Lake at the Watershed Center

Below: The cool blue flow from Sanders Spring along the trails at the Watershed Center



#### **BOARD OF DIRECTORS**

Keran Lemons, Chair

Dan Hoy, Vice Chair

Michael Bridges, Secretary

Scott Bratcher

Bridget Dierks

Stuart Murr

#### STAFF

Mike Kromrey, Executive Director

Stacey Armstrong, Projects Manager

Kelly Guenther, Business Manger

Rob Hunt, Watershed Center Coordinator

#### **OUR MISSION**

To sustain and improve the water resources of Springfield and Greene County through education and effective management of the region's watersheds

#### **OUR SPONSORS**

City Utilities of Springfield

Greene County

City of Springfield

#### **OUR PARTNERS**

**Drury University** 

Greene County Soil and Water Conservation District

Master Naturalists

Missouri Department of Conservation

Missouri State University

Project WET (Water Education for Teachers)

Springfield-Greene County Park Board

#### Dear Friends,

The Watershed Committee of the Ozarks (WCO) began a new chapter in 2012. We settled into the new Watershed Center, hired a new director, created a new strategic plan, accepted new staff duties, welcomed three new board members, designed a new logo, made a new format for our annual report....we even began a new long-term fund which will serve as an endowment with the purpose and hope of making the WCO more sustainable and resilient.

This is a lot of "new" for an organization 29 years old. In light of the many changes we are embracing, and the fact that few founding members are now associated with the Watershed Committee, now is an important time to remember why we were created and what our role is in the community.

Thirty years ago, the Watershed Task Force was assembled out of concern for the drinking water supply. The group foresaw the community's growth would threaten the very water it depended on if a thoughtful, balanced approach was not taken. One of the recommendations of the task force was to form a group—the Watershed Committee of the Ozarks—to protect our drinking water resources. Twenty-nine years later, the WCO has proven to be one of our community's best ideas. The same stressors to our water supply that were present then are present now, and the mission of the WCO remains vital, relevant, and important. The powerful three-way partnership between the City, the County, and City Utilities still accomplishes valuable funding leverage, cooperation, and efficiency.

Look at this report! Our work over the past year illustrates that our foundation remains firmly planted in our original charge and mission, while we embrace the present and prepare for the future. It is an honor to be a part of this team, and I am looking forward to the challenges and opportunities of the year to come.

Kind Regards,

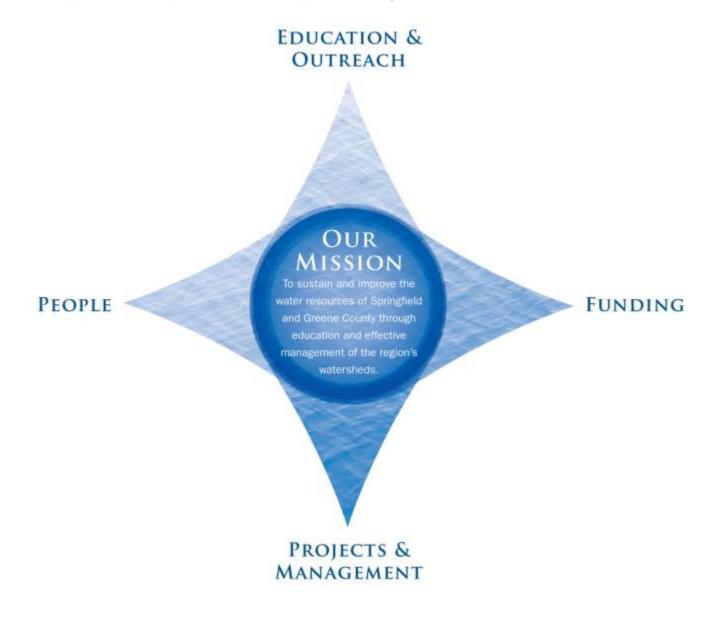
Mike Krony

Mike Kromrey
Executive Director

#### Preface

At the Watershed Committee, our mission focuses the organization and directs the work that we do. However, the work of watershed protection is complex. This became apparent at our August retreat when the board and staff embarked on the process of updating our strategic plan. During the meeting we found ourselves momentarily stymied in pages of goals, objectives and strategies that comprise our work. In an "aha moment", a creative solution rose to the surface. A compass, with four cardinal directions, succinctly fits our organization.

Our north and south represent education and outreach and projects and management. These directions are the real work of water protection. East and west represent funding and people. These are the resources necessary to accomplish the work. In the center of the compass, the place from which everything radiates outward, is our mission. The accomplishments of 2012 contained in this report are organized in this manner, so our compass can be your guide. Please take joy in these accomplishments because none of this could happen, or is even possible, without supporters like you.





## Education and Outreach

Education and Outreach are at the core of our mission. In order to protect our resources, citizens must understand where our water comes from, what can negatively affect our resources, and what actions citizens take to protect them. We strive to connect kindergarteners through engineers with the information they need to help keep our water clean and plentiful.

Pictured: Students on a field trip at the Watershed Center

#### Website and Media

The biggest change in our website in 2012 was a major increase in blog activity. The blog is updated several times each week, and everyone from the staff participates. Along with normal posts, WCO has started a "Water Wednesday" weekly post that provides thought provoking insight into water conservation, protection, and education.

In addition to our blog, WCO has been active in social media. The Facebook page, <a href="http://www.facebook.com/WatershedCommitteeoftheOzarks">http://www.facebook.com/WatershedCommitteeoftheOzarks</a>, is updated an average of 4 times a week with shared posts, articles, and pictures from the Watershed Center. Plans to increase volume to the YouTube account have begun with the purchase of a High Definition camcorder and an idea for interpretive videos that demonstrate features of the Watershed Center. Last year was a good year for increasing the web presence of WCO, and 2013 promises to hold even more online promotion of clean water, our sponsors, and our organization.

#### Watershed Center Field Trips

This year we hosted 41 water quality field trips at the Watershed Center. The age of participants ranged from kindergarten to adult, and topics covered stormwater, karst topography, stream ecology, forest ecology, and anything in between. During one trip in particular, students sampled water from Jordan Creek and toured the culvert in the morning, and sampled the South Dry Sac and toured the Watershed Center in the afternoon. It was a fantastic illustration of the impacts of urbanization to a stream habitat.





#### Onsite Wastewater Training Center (OWTC)

The OWTC saw a lot of use this year. Training and recertification courses occurred throughout the year, organized by Greene County and Missouri Small Flows. Springfield-Greene County Parks Board was instrumental in the maintenance of the site and it looked great for each session. In 2010, three acres of the site were converted to native prairie for the water quality, maintenance, and habitat benefits it would provide. During the drought of 2012, the prairie flourished, and volunteers and staff aided by removing some invasive species.

#### Drought Response

The summer of 2012 was one of the hottest and driest on record for Missouri and the Nation. The storage capacity of our water supply plummeted to within a couple of percentage points of triggering mandatory water conservation efforts. The combination of citizen action, transferring water from Stockton Lake, and timely rain helped the community narrowly avoid these mandatory measures. During the drought, WCO fielded numerous calls and interviews from local news media about various water related topics, held a drought forum at our Monthly Meeting, and encouraged water conservation through our Water Savers project, website, and social media outlets.

#### Medicine Take Back Event

The Community Partnership of the Ozarks in cooperation with the National DEA Medication Take Back held the Springfield Area Medicine Take Back Event on April 28, 2012. The Watershed Committee assisted by providing local water quality information to participants of the event. This event collected over 900 pounds of expired or unused prescriptions! Proper disposal (not flushing!) of these medications helps to prevent possible misuse while also keeping them from harming our drinking water supply.

#### Water Savers

The Water Savers program gives local residents the equipment and education they need to conserve water. This year, we added toilet tank displacement bags to the usual sink aerators, low-flow shower heads, leak

testing kits, and shower timers. Participants can select the items they can use and place them in a Watershed Center tote. The staff went out on a couple of occasions to distribute the kits to the public as a trial run. We plan to be prepared, especially if the drought persists, to distribute many of these kits in return for a donation that will help keep the program sustainable.



#### Stormwater

With the opening of the Watershed Center, WCO was able to be even more effective at educating the public about Stormwater. This section of water education is especially important due to our partnership with the City of Springfield and Greene County. Through our outreach and education, we help the city maintain its MS4 permit with the Environmental Protection Agency, in an effort to ensure the stormwater that leaves Springfield meets standards set by the EPA. While every field trip held at the Watershed Center contains some element of stormwater discussion, there are several ways in which we focus on this subject. Our Enviroscape model demonstrates how non-point source pollution can enter a body of water untreated, the Stream Trailer shows students the effects of changing a river's course, altering its banks, or introducing different types of pollution to its waters, and the many best management practices around the site provide excellent examples of what we can do to protect our water.

Jordan Creek Tours are an effective outreach tool for educating citizens about stormwater. Participants have

the opportunity to go through the Jordan Creek Culvert underneath the streets of downtown Springfield, guided by Watershed Staff. Participants can see storm drains connecting directly to the creek. This tour always leaves a powerful impression on our visitors, and we have had a sharp increase in request for tours and television coverage of our tours this year.

KY3 News Reporter, Linda Russell, covered a summer Jordan Creek Tour and interviewed Watershed Center Coordinator Rob Hunt and City Storm Water Engineer Todd Wagner



#### **Educational Partnerships**

Partnerships and collaboration with local colleges and universities have continued to grow. Classes from Ozarks Technical Community College, have come out to do everything from a tour of our LEED Gold C.W. Titus Education Facility to sampling the South Dry Sac Creek for macroinvertebrates. Missouri State

University sent Biology and Geology classes out to hike our trails and we even had Abbe Ehlers's Food and Beverage class visit on several occasions to learn about the application of green practices in the Hospitality and Restaurant field. Students from Drury University volunteered and used the Watershed Center for various research projects.

In April, WCO had the opportunity to team up with the Discovery Center of Springfield during their Earth Day celebration. As in years past, we were also able to partner with the James River



Basin Partnership during their Watershed Festivals, talking to kids from the James River Watershed about stormwater and pollution. During the Green Leadership Academy for Diverse Ecosystems, or GLADE, Rob Hunt spent some time on the creek and the lake with a very gifted group of future leaders.

At the Watershed Center, WCO has been able to team up with the City of Springfield, Greene County, Missouri Department of Conservation, and Missouri Small Flows to provide training on wastewater and stormwater, as detailed in the Onsite Wastewater Treatment Center and Stormwater.

A new program from 2012 was the Environmental Education, or EE, Blitz. This event brought over one hundred home school students from around the state to the Springfield Conservation Nature Center to

learn about all of the great education and field trip opportunities in Springfield. In March 2013, we have the privilege of hosting the second installment of the EE Blitz at the Watershed Center!

#### Fishing

Fishing at Valley Water Mill Lake kicked off on March 7, 2012 with the students from the Wonders of the Ozarks Learning Facility, better known as WOLF. Since the first day of fishing, many bass, bluegill, cat-fish, and crappie have been harvested from the lake. Fish populations are monitored and maintained by the Missouri Department of Conservation. The last sampling showed strong populations of bass and bluegill.

Executive Director, Mike Kromrey, helping a WOLF student



#### Monthly Meetings

Every first Friday of the month, the WCO continues our long tradition of gathering community stakeholders together to learn about water related topics. In spite of 7:30 am meeting time, over 500 attended in 2012. The meetings also serve as a networking opportunity, and a time for participants to share announcements and upcoming events. These meetings are truly a great tradition of the Watershed Committee, and we are thankful to all our participants and presenters. Our topics for 2012 were:

- ◆ January: "Watershed 101" by Mike Kromrey, Education and Outreach Coordinator, Watershed Committee of the Ozarks
- February: "Securing Our Water Future" by Gail Melgren, Executive Director, Tri-State Water Resource Coalition and Roddy Rogers, Board of Directors President, City Utilities Water Distribution Manager
- March: "Ozarks Water Watch Update" by David Casaletto, Executive Director, Ozarks Water Watch
- April: "What's Green in Branson?" by Mona Menezes, Environmental Specialist, City of Branson
- May: "Overview of Missouri Master Naturalists" by Jennifer Ailor and Bob Kipfer
- June: "Sustainability at Missouri State University" by Dr. Tammy Jahnke
- ♦ July: "Missouri Stream Team Watershed Coalition: A Statewide Mission" by Holly Neill, Director
- August: "Jordan Creek Renewal Project" by Todd Wagner, Principal Stormwater Engineer, City of Springfield
- September: "Drought Panel and Discussion" with Roddy Rogers-City Utilities, Bob Pavlowsky-OEWRI at MSU, Mark Green-National Weather Service, Moderated by Gail Melgren
- October: "Watershed Committee Staff Update" by Mike Kromrey, Executive Director, Rob Hunt, Watershed Center Coordinator/WCO and Wetland Learning Station Dedication/Remembrance of Robin Melton
- November: "TMDL Solved with TREE" by Eric Dove, Olsson Associates
- December: "PAHs in Springfield Sediments" Todd Wagner, P.E. Principal Storm Water Engineer, City of Springfield and Carrie Lamb, Water Quality Coordinator, City of Springfield

After our October Monthly Meeting, the WCO Board and staff, along with friends, coworkers and family of Robin Melton spent some time remembering her. The Wetland Learning Station was dedicated in her honor, and we unveiled an interpretive sign for the Wetland Learning Station with a picture of Robin.



#### Year at a glance-Education and Outreach

Participants Visiting Watershed center	1605
Event Bookings	53 (Excluding Field Trips)
Watershed Center Field Trips	41
Volunteer Hours Logged	1629
Booths at Community Events	7
Jordan Creek Tours	11
Onsite Wastewater Training Center uses	5
Events in C. W. Titus Education Facility	67
Blog Posts	92

#### New Publications (available on our website, downtown office and C.W. Titus Education Facility)

Five new onsite wastewater fact sheets were created in partnership with Greene County Resource Management and funded by the WQIP project:

- Maintaining your Onsite Wastewater Treatment System
- Maintaining your Onsite Wastewater Drip System
- Maintaining your Onsite Pump to Gravity System
- Maintaining your Onsite Wastewater Lagoon System
- Maintaining your Low Pressure Pipe System

Three new brochures were created for the Watershed Center:

- The Watershed Center at Valley Water Mill Park
- Rental Information
- Being Green: Green features of the Watershed Center and practical tips you can apply at home or work

Several other publications, interviews, and presentations, a few of which are listed here:

- A Groundwater Connection postcard was created in response to the drought
- Mike Kromrey's article "Everyone can be a steward of streams" was published in the Springfield-News Leader as Voice of the Day as was Rob Hunt's article "Ozark Vacations"
- KY3's Emily Wood covered a Watershed Center field trip and KY3's Linda Russell covered a Jordan Creek
   Tour
- Projects Manger Stacey Armstrong was interviewed by KSPR 33about WCO's involvement with local swimming hole sampling, in conjunction with the Springfield-Greene County Health Department
- Director Mike Kromrey was interviewed by KSMU regarding Ozarks Water Watch Week, by the Springfield-News-Leader about WCO's water sampling program, by KY3 regarding the drought, and he and Dr. Janice Green were interviewed by KY3 about their seminar "Are we loving the Ozarks to death"



Projects and Management is where the rubber meets the road. Source water protection, watershed management plans, stormwater best management practices, and policy recommendations are water protection techniques important to all members of our community. Support from our sponsors allows us to operate and apply for additional resources to fund projects that improve our communities water resources.

Pictured: Rain garden at Doling Park

#### Water Quality Improvement Project (WQIP) Final Report

The Water Quality Improvement Project was a federal grant initiated in May 2006 to improve and protect water quality while enhancing economic development for municipalities, agriculture, and tourism. Throughout the five and half years since the initiation of the grant several important water quality projects have been implemented in Southwest Missouri. The completed projects include the remediation of sixteen onsite wastewater systems that were failing to groundwater, seven educational onsite wastewater trainings, and installation of public low-flow outdoor restroom facilities at the C.W. Titus Watershed E ducation Facility. The grant total award amount over the six year project timeframe was \$636,664. The WQIP grant was completed on March 30, 2012 and a final report can be found at <a href="http://">http://</a> watershedcommittee.org/our-publications/.

#### **Conservation Innovation Grant**

The USDA Conservation Innovation Grant provides \$100,000 (which includes 50% local match) to help two

local farms install innovative farming practices to produce food more sustainably and help control stormwater runoff. The project will also hold field days and create resources to encourage these practices on other local farms. In 2012, the grant was extended to allow the farmers enough time to make use of the available funding. Some of the innovative practices installed so far include vermicomposting, water and energy conservation practices, and one of the first Chinese High Tunnels in North America!



Chinese High Tunnel being built at Millsap Farm

#### DNR Trails Grant Wrap Up

The Watershed Committee received a Recreational Trails Grant from the Missouri Department of Natural Resources in March 2011. The purpose of this grant was to construct 1,550 ft. of hard surface trail (pictured) connecting

the existing Lakeside Learning Station to the newly constructed C.W. Titus Education Facility. The grant also provided money to aid in construction of a trailhead and parking lot for the Education Facility. Total project costs are estimated at \$143,090, with \$85,000 of the amount coming from the federal grant and the remaining coming from local matching funds. This project extends the hard surface trails at the Watershed Center to just over 3,000 feet and provides greater access for disabled patrons.



#### High-Efficiency Toilet Project

Watershed Committee of the Ozarks (WCO) received a grant from the Community Foundation of the Ozarks to increase the number of high-efficiency toilets that City Utilities (CU) provided to low income people. The project marks a continued effort to help customers use water more efficiently. With this program, a customer who has received assistance through the federally funded Low Income Home Energy Assistance Program (LIHEAP) and is a CU water customer, may qualify to have up to three High-Efficiency Toilets installed in their residence at no cost to them. Both low-income homeowners and renters qualify (with approval from the property owner). CU sorts the qualifying customers from the highest to lowest monthly water users. For the highest water users in this category, CU's Water Technicians from the Water Operations area conduct a comprehensive water audit in the home prior to toilet replacement. This allows additional leaks to be identified and repaired if possible, along with the installation of new showerheads and faucet aerators. In addition to conserving water, this project can lower the water bills for people who can use the assistance the most.

#### Watershed Center Site Projects

Since the completion of the C.W. Titus Education Facility, the Watershed Center has been full of new projects

in various stages of completion. A vegetable garden was planted under the living wall structure; a wire lattice on a metal frame designed to support vines and channel rainwater down the plants into the soil. Other plantings occurred on the lake itself. Sarah Davis and Sonny Decker from the City of Springfield held a small workshop for WCO staff and volunteers on the construction of floating wetlands. The raft-like garden beds allow the roots of wetland plants to grow into the water, removing excess nutrients



and creating habitat for aquatic organisms. A few more were constructed throughout the year with promising results. While there are still some kinks to be worked out, these floating gardens are an attractive way to filter our water here at the park.

To increase visitor usage, we were able to install a paved pathway from the C.W. Titus facility to the Lakeside Pavilion, creating a paved or boardwalk trail along one entire side of the lake. And, just within the last couple of months, a new retaining wall, donated by Eroco, has been built along the east side of the parking lot near the education facility and the post for our entrance sign has been installed, with the entrance sign coming along very soon!



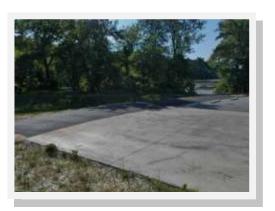


Making Floating Wetlands



Vegetable garden planted under living wall

Trailhead of pathway that leads from the C.W. Titus Education Facility parking lot to the Lakeside Pavilion



Completed Floating Wetlands being put into Valley Water Mill Lake

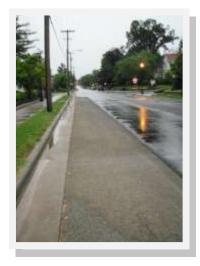
## 319 Nonpoint Source Implementation Grant: Springfield-Greene County Urban Watershed Stewardship Project (The Big Urbie)

On May 1st, 2011 Watershed Committee of the Ozarks was awarded federal funding through the Missouri Department of Natural Resources Nonpoint Source Implementation (319) Grant to apply stormwater best management practices in Springfield and Greene County. The project includes installation of numerous "green" stormwater management practices, monitoring of their effectiveness at reducing and treating pollutants commonly found in urban stormwater runoff, and educating the public about stormwater.

The grant is funded by the U.S. Environmental Protection Agency under Section 319 of the Clean Water Act, and is administered by the Missouri Department of Natural Resources. The Watershed Committee of the Ozarks applied for the grant in partnership with the City of Springfield's Department of Public Works Storm Water Engineering Division, Missouri State University's Ozarks Environmental and Water Resources Institute, Greene County Resource Management, James River Basin Partnership, Missouri Project WET, and Ozark Greenways. The grant requires a match of funds and in-kind services that bring the total value of the project to more than \$1.6 million.

The Section 319 grant will implement stormwater practices that reduce and treat runoff from streets, buildings and parking lots, thereby protecting area streams, lakes, and springs. The improvements will be implemented at homes, businesses, schools, and community parks located in the South Creek, Fassnight Creek, Jordan Creek, and Pea Ridge Creek watersheds. The grant will also monitor the water quality before and after the improvements are built. This will allow local experts to measure the effectiveness of these natural solutions for reducing, absorbing, and treating stormwater runoff. More information and updates cam be found at www.bigurbie.org





Walnut Streetscape Pervious Pavement



Native Tree Planting in Jordan Creek Riparian Corridor



Rain Garden at Doling Park

#### Big Urbie-Stormwater Quality Improvement Projects

During the 2012 calendar year, several stormwater quality projects were completed including riparian corridor improvements, infiltration swales, rain gardens and pre-water quality monitoring data collection for detention basin retrofits. In April 2012 the Watershed Committee partnered with the City of Springfield Storm Water Services and Ozark Greenways to plant 20 native trees in the Jordan Creek riparian corridor between Main Avenue and Grant Street Bridge. These trees will help filter and remove stormwater runoff before entering into the creek.

The City of Springfield Storm Water Services partnered with the Big Urbie grant on several stormwater best management practices (BMPs) during the year including the installment of pervious pavement and infiltration swales with street trees as part of the Walnut Streetscape project from John Q. Hammons Parkway to Kimbrough (picture on right). During the Doling Park Lake and Waterway Improvements, a rain garden and wetland were constructed to reduce and filter runoff draining into Doling Lake. Also during the renovation of the City's Environmental Resource Center building, a cistern was installed to harvest rainwater from the roof for landscape irrigation. A floating wetland was constructed at Valley Water Mill Lake to remove excess nutrients from the lake. Project planning with Springfield Public Schools (SPS) was also started for stormwater improvements projects at Robberson and Boyd Elementary Schools.



Walnut Streetscape Infiltration
Trench

An automatic sampler was installed in detention basins at MSU and Drury to monitor the flow and water quality entering and leaving the basin prior to it being retrofitted. Monitoring is being conducted by Ozarks Environmental Water Resources Institute (OEWRI) at Missouri State University throughout the grant to determine the effectiveness of these BMP practices at reducing the volume of runoff and improving water quality.

Missouri Department of Conservation (MDC) partnered with Watershed Committee and the Missouri State Darr Agricultural Center to select 290 native seedlings to plant along the South Creek corridor. MDC helped to provide advice on what species would be suitable for the site conditions and the Missouri State Students will help with planting the seedlings in the spring. The Big Urbie Jordan Creek Clean-up was held on October 13th with over 130 MSU students volunteering a total of 390 hours. They removed 50 large trash bags of trash out of Jordan Creek. The trash bags can contain about 25 pounds of trash so we estimate that about 1,250 pounds of trash was collected and removed from the creek.



Boyd Elementary before stormwater Improvements



Water quality auto sampler and Rain Gauge at Drury

#### Big Urbie-Stormwater Education

During the 2012 calendar year, several stormwater education events and materials were completed including the Big Urbie stormwater survey and PSAs for low impact development (LID) practices on KSMU radio station. The Show-Me Yards and Neighbors and the Professional Grounds Management Society hosted a free "Sustainable Landscape Professionals Workshop" in partnership with the grant on February 7, 2012 with 108 people in attendance. The workshop provided practical information on sustainable techniques including turf management, rain gardens, rain barrels, native plants and nonpoint source pollution including Stacey Armstrong's presentation on the Big Urbie Grant and the connection between water quality and sustainable landscaping. On Aug. 28th the Big Urbie grant partnered with James River Basin Partnership's (JRBP) Show Me Yards, Neighborhoods, Farms and Ranches homeowner workshop at the Darr Agricultural Center. At the workshop Stacey Armstrong presented on the Big Urbie grant and the cost-share funds that are available for LID practices.

The Watershed Committee of the Ozarks, Ozarks Technical Community College, Ozark Greenways, James

River Basin Partnership, and the City of Springfield partnered on the Fassnight Creek stormwater education mural along the Ozark Greenways trail in Fassnight Park. The ribbon cutting and unveiling for mural was held on May 15th in conjunction with the Springfield-Greene County Parks Improvements.

Ozarks Technical Community College Fine Arts student, Karesse Wilkey (pictured) designed and painted the mural as part of an educational component of a Big Urbie Stormwater Grant. The mural is a reminder that our actions make a difference and every person can help keep our water clean.



Stacey Armstrong presented on the Big Urbie grant at the 319 Water Summit in Branson on June 13<sup>th</sup> and also attended the Shaw Greener Stormwater Conference in St. Louis on June 19<sup>th</sup> to learn about green stormwater projects in the St. Louis metro area. These conferences provided useful BMP maintenance information that will be applied to local Big Urbie projects.

Educational materials created for the grant this year included LID and pet waste educational brochures which both were created in partnership with JRBP and the City of Springfield. The Pet Waste photo contest was held on the Big Urbie website which encouraged pet owners to submit a photo of their dog to be featured on an educational brochure. The pet waste educational brochure was designed and completed in time for the September 22nd DogFest and the October 20th Pets and Pumpkins. During these events JRBP and WCO gave away the educational pet waste postcards (pictured) to help educate owners about the importance of grabbing and bagging your pet waste. TAME magazine partnered with the Big Urbie grant to give away these postcards with 3,000 donated bags along with ad space in TAME magazine to feature the pet waste educational message. To learn more about the progress of the Big Urbie grant, visit www.bigurbie.org.



#### Springfield-Greene County Health Department Sampling

WCO assisted Springfield-Greene County Health Department with collecting their weekly bacteria samples in streams that are public swimming locations during the summer months. After the samples are analyzed the **E.Coli and Total Coliform results are posted on the Health Department's webpage the following day for the** public to access. Samples were collected from May 1<sup>st</sup> till September 4<sup>th</sup>, 2012 and results can be found at <a href="http://health.springfieldmo.gov">http://health.springfieldmo.gov</a>.

#### Asher Creek Sampling

The WCO is partnering with the Greene County Soil and Water Conservation District (GCSWD) to conduct the water quality sampling component for the Asher Creek 319 Project. WCO and the GCSWD have the common objective of encouraging the responsible use of our natural resources and the protection of critical drinking water supplies in the Little Sac River Watershed. WCO Field Technician David Chiles is collecting the water quality grab-samples and flow measurements, downloading stage logger data, and delivering the samples to Ozarks Environmental Water Resources Institute for analysis.

The Asher Creek watershed is a sub-basin of the Little Sac Watershed in Greene and Polk Counties. The Little Sac River Watershed includes Fellows Lake, McDaniel Lake, and Stockton Lake and makes up the majority of the City of Springfield's public drinking water supply. In 1998, the Little Sac River was placed on the 303d list for bacterial contamination, for which a TMDL for Fecal Coliform was approved in 2006. The WCO conducted water quality field work in the Asher Creek Watershed sampling primarily for bacteria, from 2003 until 2007. In 2006, City Utilities of Springfield conducted sampling for total phosphorus, total nitrogen, bacteria and other constituents in an effort to further identify the problem. In 2009, in a joint effort between the WCO and GCSWCD, the nine element Upper Little Sac Watershed Management plan was developed which includes the Asher Creek sub-basin. In the Upper Little Sac Watershed Plan data from several previous studies, including the Little Sac River TMDL and the Little Sac River Data Gap Analysis identified several priority sub-watersheds. Sampling data from four locations on Asher Creek indicated high levels of impairment in this relatively small sub-basin with higher than 125cfu/100mL geomean of E.coli bacteria. Because of the elevated bacteria levels, the Asher Creek Basin was identified as a priority area for BMP implementation and restoration in the Upper Little Sac Watershed Plan.

The primary goal of the Asher Creek water quality monitoring effort is to quantify the load level of the measured impairments in the watershed (pre-implementation). Up until this point no extended, weekly water quality monitoring effort has been conducted in this watershed. The secondary goal of the monitoring effort is to measure the effectiveness of the project's proposed BMPs.

#### Greene County Dye Traces

WCO partnered with the Greene County Resource Management to investigate hydrology and groundwater concerns. In fall 2012 a dye trace from a sinkhole filled with trash and debris in Greene County was traced to Fulbright Spring, which is part of the public drinking water supply for the City of Springfield. The trash in that sinkhole was then removed providing a direct improvement in the water quality. This dye trace and others

like it have been instrumental in understanding the unique connections our surface water has with our groundwater and provides a beneficial tool for source water protection.

WCO also partnered with the City of Springfield Storm Water Services to perform a dye trace at Doling Park (pictured) on June 7th to find the leak in the wall of the lake. The dye trace was successful and helped to pinpoint the location of the leak which prevented the need to fix the entire wall of the lake which would have cost more than \$30K.



## People

The Watershed Committee of the Ozarks is People—people who are dedicated to protecting our water resources now and for the future. Our board, staff, sponsors, volunteers, partners, and supporters are a group of dedicated and dynamic individuals who make our mission possible. This chapter is about those people.

Pictured: Presentation of the LEED Plaque for the C.W. Titus Education Facility

#### Staff Development

Kelly Guenther, Stacey Armstrong, and Rob Hunt attended a conference at Drury University for non-profit organizations. The staff had the opportunity to learn about many aspects of non-profit business with topics ranging from social media to communicating with board members. This conference served as a valuable networking tool for many of the local non-profits in Springfield. Staff also attended the Annual Tri-State Water Conference.

Rob Hunt has been representing the Watershed Committee of the Ozarks as part of the Interpreters Coalition, Environmental Collaborative, and as part of the Association of Missouri Interpreters (AMI) he was able to attend a late summer week-long workshop where he sharpened his skills as an educator and interpreter.

#### Staff Cont.-

The Stormwater Management Task Force, through a facilitated process, is working to provide valuable community input, representation and collaboration in developing guiding principles, priorities, policies and funding options for managing stormwater issues in Springfield and Greene County. This task force includes 30 representatives from various stakeholder groups, including WCO Projects Manger, Stacey Armstrong. The first Stormwater Management Task Force was held at the C.W. Titus Education Facility October 25, 2012. Stacey also attends Greene County Area Resource Team meetings to stay informed on proposed development and zoning changes in our drinking watershed. All staff have been able to attend the Learning Community non-profit consulting classes offered by Applegate Consulting—an opportunity made possible by the Community Foundation of the Ozarks, and Mike Kromrey has been involved with many groups including the Our Missouri Water advisory committee, the MSU Sustainability advisory committee, the Professional Science Masters program advisory board, and others.

#### WCO Board Member Changes

The board of the Watershed Committee of the Ozarks has welcomed three new members in the last few months. Dan Hoy, the Facilities Manager for Bass Pro Shops, started in November as a City appointee, filling the seat of the late Robin Melton. Bridget Dierks with the Community Foundation of the Ozarks, and Scott Bratcher with Marlin are filling at-large positions, formerly held by Bill Cheek and Leslie Carrier. Our former board members were a great asset and will be missed, but we are fortunate to have such dynamic and talented new board members to provide leadership for years to come.

#### Staff Changes

In October of 2011, long time Watershed Employee and Operations Manager Matthew Keener left WCO for a new job. In December 2011, Loring Bullard retired after 22 years as the Executive Director. This left Stacey Armstrong, Kelly Gunther, and Mike Kromrey in their roles of Project Coordinator, Office Manager, and Education/Outreach Coordinator to begin 2012. In January 2012, the Board of WCO hired Mike Kromrey as the new Executive Director; he started on January 30th, 2012.

In order to adapt to these staff changes, fill vacancies, and restructure so that WCO could effectively carry



out its' mission within the parameters of the budget, the board voted to remain as a four person staff. Job duties were combined and staff titles were changed to reflect increased responsibilities. Kelly became the Business Manager, Stacey became the Projects Manager, and Rob Hunt started as Watershed Center Coordinator on April 11, 2012. The competence and passion of this small group of water warriors is evidenced by accomplishments of 2012 outlined in this report!

Pictured from left to right:

Stacey Armstrong, Rob Hunt, Mike Kromrey, Kelly Guenther

#### Volunteering

We had a record year for volunteer efforts at WCO with 2236 volunteer hours on the books. It is a very special service we are able to provide thanks to the help of our volunteers. Our successes in cleanups, field trips, and other big events are due to the wonderful dedication of a large community of volunteers. If you are interested in being a part of what we do, you can contact Rob Hunt directly at <a href="mailto:rob@watershedcommittee.org">rob@watershedcommittee.org</a>, or use our website to find more information. Our volunteers help to promote clean water by educating students who visit the Watershed Center on field trips, and by working on cleanup projects and riparian restoration.

We owe a special thanks to our Board members, who volunteer about 300 hours each year, helping us with major decisions, Monthly Meetings, and guiding us as we move forward with a new facility and a new staff.

During the past summer, the Watershed Center had four parttime interns working at the site. Amber Lee, Ryan Slanczka, and Brent Stock joined us from Missouri State University, and Josh Parish came down from Northwest Missouri State University in Maryville, Missouri. Among many day to day projects, they were able to build two wood duck houses, one bat house, make a visitor survey, and worked on eradicating the invasive species problem on our site. They were truly a treat to have along for the summer months. Pictured: Ryan, Amber, Rob Hunt and Josh





2012 was a busy year for cleanups as well. In the spring and fall, we led cleanups on Jordan Creek. The fall cleanup alone brought together over one-hundred and thirty MSU fraternity and sorority members, a handful of our die-hard volunteers and help from Kellie Herman at James River Basin Partnership. We gathered over fifty big bags of trash, broken PVC pipe, broomsticks, a shopping cart, and just about anything else you could imagine. The City of Springfield provided a bunch of bags and hauled the trash away.

Pictured: College students picking up trash in Jordan Creek

Thank you to the many volunteers who came out to help with the 41 school field trips booked at the Watershed Center in 2012. We were so popular our field

trips even made the news!

Ky3's Emily Wood covered a summer field trip at the Watershed Center and showed off a small turtle she found!



#### Volunteering Cont.-

Our volunteers also had the chance to get on the water this year. In late summer, about 30 people showed up to clean Valley Water Mill Lake here at the Watershed Center. Melvin Johnson from Outdoor Initiatives

brought kayaks, canoes, and even a few paddleboards to help us grab that hard-to-reach trash. The weather was perfect and Matt Boehner even grilled lunch for all afterwards. In the fall, our crew was not so lucky with the weather, but we still had fun. On a rainy and chilly September morning, a dozen or so volunteers gathered on the banks of Fellows Lake to provide some much needed love for our drinking water reservoir. A special thanks is owed to marina operators Pam and Paul Price and MDC for logistics and equipment support. Pictured: Brent Stock, Matt Boehner, Rob Hunt, Sonny Decker and Sarah Davis at the Fellows Lake clean-up





A big thanks to the Evangel University students who came out to the Watershed Center on Make a Difference Day and assisted Rob Hunt for a day of long neglected chores. Without the help of those volunteers, many tasks would have remained on the "to-do" list for far too long.

#### Adopt-A-Spring

Adopt-A-Spring is a volunteer water quality monitoring program. Since the program began over six years ago, trained volunteers have collected quarterly water samples from many of the major springs in Greene County. Over the years, this program has assimilated a large data set that can help locate groundwater problems and track changes over time. The results of the nitrogen, phosphorous, and bacteria tests are kept on a spreadsheet and can be easily shared with interested parties.

Pictured: Bob Ranney explaining the AAS program



#### Volunteer Profile: Former Volunteer Erin Murray on the Importance of her WCO Experience

Through volunteering with the Watershed Committee of the Ozarks, I had the unique opportunity to both develop valuable skills and put them into action. I began volunteering during my sophomore year as an undergraduate biology student, and initially learned both biological and chemical methods for monitoring water quality. Later on, I was able to lead field trips and share this expertise along with the value of protecting our area's water with visiting students. Over the course of two years, I worked with the Watershed Committee to develop a pilot water conservation project for Missouri State University, and finally implement low-flow shower heads, sink aerators, and shower timers in all residence halls on campus.

My involvement with the Watershed Committee increased my appreciation and enthusiasm for water resources, and led me to seek out courses, research projects, and extra-curricular involvement at Missouri State that emphasized water processes. Additionally, as a volunteer I had the opportunity to help edit an environmental plan for the city of Springfield and network with regional environmental leaders, a level of community involvement that undergraduate students rarely achieve. These experiences had such a positive impact on me that I chose to pursue a master's degree in hydrologic sciences, where I am currently researching climate change and water resource impacts on agriculture at Boise State University. The mentoring and skill-sets that I achieved as a volunteer at the Watershed Committee have been crucial to my success in graduate school, and I anticipate a future career and lifelong passion dedicated to the protection of water resources.



Erin volunteering with WCO on a stream clean up



Erin doing research in the Rain Forest of Costa Rica

#### Volunteer Profile: Nicole Boucher

We would be remiss if we did not say a special thank you to Nicole Boucher who has put in an astounding 196 hours of volunteer work in one calendar year. She is certainly our go-to for any type of project. Whether she is leading field trips, taking water samples along a test site, or washing windows, Nicole works diligently, fueled by an obvious passion for clean water. Nicole is currently a student at Missouri State University working on a degree in Wildlife Biology. Nicole has been volunteering with us for a year and a half.

When asked about her experiences with WCO, Nicole said, "The opportunity to volunteer here has been an amazing experience. Not only have I had the chance to learn many new and exciting things, but I have also been able to give back to my community while doing so. Last summer I was given the opportunity to help collect water samples to be tested for bacteria levels. The Health Department posts the results on their website. It was fun to work on a project that provides such a wonderful service for the public. I also love to help with field trips. I believe the best way to make a change is through education. The Watershed Committee is a wonderful organization that I am honored to be a part of." We are certainly honored to have her helping teach the community about clean water.



# Funding

Funding is necessary to accomplish the work of protecting our water. Our sponsors, City Utilities, Greene County, and the City of Springfield provide our core operational funding. This three-way agreement is a powerful fund leveraging mechanism for each sponsor. Grants, donations, and in-kind contributions are also vital to advancing our mission. As an example, the Watershed Center project was made possible by \$659,222 in private funds.

#### Long Term Fund

At the Watershed Committee, we continue to successfully leverage funds, create partnerships and receive grants, but to help ensure we can continue our work in the community over the long-term, we are striving to become more financially resilient. Recently, the Watershed Committee of the Ozarks began a drive to develop a Long Term Fund, with the assistance of the Community Foundation of the Ozarks. The Fund will be treated as an endowment, with the added benefit of being unrestricted so it can be accessed in the case of dire emergencies. You might consider a financial gift to help us ensure our legacy of water protection and education, thank you for your help and consideration!

#### Eat for Equity

The Friday night (July 13th) Eat for Equity benefit for the Watershed Committee was fresh and fun. The avant-garde fundraiser brought about 75 people together to eat, drink, and network in low-key, Rountree Neighborhood style. Co-hosts Will Chiles and Ashley Filmore, along with their professional chef friends, put together a summer feast that was bar none. I can still taste the cantaloupe mint sorbet!

#### Farth on Your Plate

The second Annual Earth On Your Plate event was held April 17th. Participating restaurants contributed up to 10% of their sales on Tuesday, April 17th to benefit Ozark Greenways, James River Basin Partnership and the Watershed Committee.

## Tristan Gumucio Donates a Year's Worth of Saved Coins to the WCO, Follows Grandfather's Example

Rey Gumucio, a lifelong advocate for clean water, generously donated to the Watershed Center Capital Campaign project. Water advocacy runs in the Gumucio family as his grandson, Tristan, also understands the importance of our water supplies and the Watershed Committee is honored to have their support. Tristan, saved coins for one year so he too could donate to the Watershed Center. Tristan and Rey attended the Watershed Committee June 1st Monthly Meeting and both made donations to the Watershed Center. Executive Director Mike Kromrey humbly accepted the donations and commended Tristan on his year long effort. Tristan's donation will aid the Watershed Center in educating more of our youth about the importance of water and the natural environment.

#### Our Generous Donors

Aaron Scott

William H. and Maret Cheek

Gail Emrie

DeDe Vest

Bridget and Andy Dierks

**EROCO** 

Dave and Mary Sturdevant

Michelle Miller

Will Chiles

Cina Canada

Jennifer Edwards

Ryan Fitzpatrick

Greater Ozarks Audubon Society

JP Morgan Chase

Mike and Mary Chiles

Jodie Adams

Patricia Kay Parker Estate

Wright Water Engineers

Loring and Carol Bullard

David Filbeck

**David Chiles** 

The Kitchen

Laurel Bryant

David Coonrod

Brian Moody

Aaron Scott

Satstore USA

Keran Lemons

Michael Guenther

Danny Tavares

Jon Williams

Walmart Foundation

Reflects donations and in-kind services received from January 1, 2012 - December 31, 2012



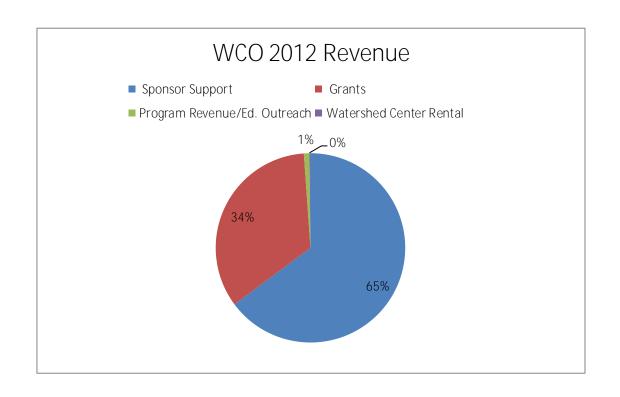
Pictured Left: Eroco donating living retaining wall

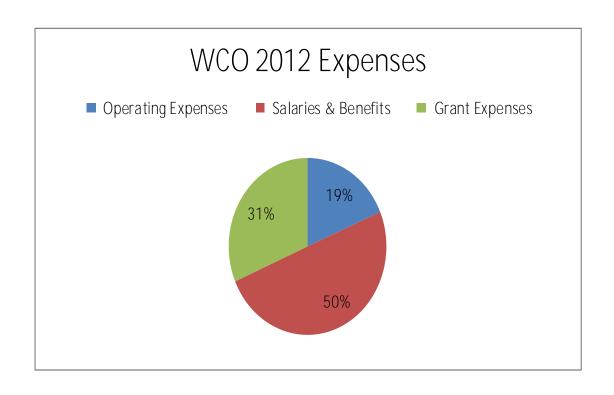


People enjoying great food and company at the Eat for Equity fundraiser



Rey and Tristan Gumucio (grandfather and grandson) giving generous support to the Watershed Committee





### C. W. Titus Education Facility Donors

3M Foundation ARIA Foundation

Barbara J. Lucks & Gregg J. Larsen

BKD Foundation
BNSF Foundation
Brenda Putman
Bruce & Jo Ann Martin
C.W. Titus Foundation

Calvin & Barbara Armstrong
Carney Cove Boat Dock Association

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UMB Bank US Bank

Wal-Mart Foundation Wild Horse Development William & Maret E. Cheek Wright Water Engineers

These reflect donations received from the years 2005-2012

### Grant Activity

Grant Project	Date initiated	Total Grant	Non-Local Funds
Greene County GIS Project	1988	\$325,000	\$235,500
Fulbright Spring Monitoring System	1989	\$40,000	\$20,000
Fellows-McDaniel Lakes 319 Project	1992	\$119,000	\$63,000
McDaniel Lake Remediation Project	1993	\$66,621	\$40,500
Fulbright Spring 319 Project	1996	\$190,000	\$100,000
Splash Exhibit for Discovery Center	1997	\$6,800	\$3,500
Little Sac River Pollution Study	1999	\$145,000	\$140,000
Discovery Center Project	1999	\$205,000	\$125,000
Adopt-A-Spring Volunteer Initiative	2000	\$12,000	\$4,900
Little Sac Restoration 319 Project	2000	\$625,000	\$343,500
Show-Me Yards & Neighborhoods	2000	\$8,475	\$4,975
Valley Water Mill 319 Project	2001	\$920,838	\$480,000
Cause Marketing for Clean Water	2001	\$8,334	\$5,000
Radio Promotion White River Basin	2001	\$8,334	\$5,000
Show-Me Yards & Neighborhoods II	2002	\$8,350	\$5,000
Time to Come Clean Awareness	2002	\$8,334	\$5,000
Show-Me Yards & Neighborhoods Tips	2002	\$8,334	\$5,000
Recreational Trails Program	2003	\$84,500	\$42,500
Jordan Creek Education Event	2003	\$2,315	\$0
Science Based Field Trip Grant	2003	\$4,000	\$0
Watershed Center	2003	\$447,000	\$447,000
Watershed Center	2004	\$994,600	\$994,600
Community On-Site	2006	\$309,650	\$185,750
Water Quality Improvement Grant	2006	\$400,000	\$400,000
LAD	2006	\$5,000	\$0
CFO Streamside Learning Station	2006	\$20,000	\$0
CFO Wetland/Curricula Grant	2006	\$22,288	\$0
LAD Interpretive Signage	2007	\$3,500	\$0
Rotary Service Grant	2007	\$500	\$0
Rotary Service Grant-Southeast	2007	\$1,000	\$0
Corporate Agency Partnership Program-			
Fishing Piers	2007	\$49,500	\$0
LAD Forestry Learning Station	2007	\$5,000	\$0
CFO Fishing Piers Grant	2007	\$30,000	\$0

### Grant Activity Cont.-

Grant Project	Date initiated	Total Grant	Non-Local Funds
Watershed Mgmt Planning Grant	2007	\$15,000	\$0
MO Recreational Trails Grant	2007	\$142,000	\$100,000
Rotary Service Grant-Southeast	2008	\$4,500	\$0
USDA-NRCS GIG Grant	2010	\$80,000	\$50.000
Missouri Solid Waste Mgmt. District O Grant	2010	\$46,350	\$46,350
LAD Foundation	2010	\$4,000	\$4,000
DNR 319 Nonpoint Source Grant	2011	\$1,684,900	\$ 684,900
DNR Recreational Trails Grant	2011	\$ 143,090	\$85,000
Community Foundation of the Ozarks Endowment			
Grant	2012	\$ 1,000	\$0
Community Foundation of the Ozarks Community			
Response Challenge Grant	2012	\$6,000	\$0
Total		\$7,068,023	\$5,625,975

#### SPONSOR SUPPORT

Organization	2008	2009	2010	2011	2012
City of Springfield	\$ 59,500	\$ 53,100	\$ 40,000	\$ 45,000	\$ 45,000
City Utilities of Springfield	\$185,700	\$225,600	\$150,000	\$181,840	\$188,000
Greene County	\$ 86,000	\$ 85,800	\$ 40,000	\$ 40,000	\$ 27,500
Springfield-Greene County Pa	\$ 14.300	\$ 14.300			

### For Every Dollar

Keeping our water resources clean and plentiful is the right thing to do for many reasons. Clean water is vital to our personal growth, our community's growth, and our economic growth. Legally, Springfield and Greene County are held accountable for the quality of the water leaving our domain. It is difficult to put a price tag on these important things, but we do know that in the world of water resources an ounce of prevention is truly worth a pound of cure—local demonstrations of this abound.

Another truism of local water protection is that the Watershed Committee of the Ozarks is a very good investment of our sponsors' (citizens') funds. The three-way agreement of our sponsors leverages every dollar spent by each individual organization from the beginning. This basic operational funding allows WCO to operate and also seek other financial resources for water protection. Even if you ONLY look at the outside dollars brought in by the WCO for water protection, which excludes many efficiencies and benefits the WCO provides, every dollar that the City, County, and City Utilities has invested in the past 5 years resulted in an \$8.12, \$7.05, and \$2.12 return on investment respectively.



#### **OUR MSSION**

To sustain and improve the water resources of Springfield and Greene County through education and effective management of the region's watersheds

We are a wise investment with a track record of achieving outcomes