



Watershed Committee of the Ozarks, Inc.

2008 Annual Report

Watershed Committee Sponsors:



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Note to our Sponsors

In the early 1980s, as development began to spill into the watersheds of Springfield's municipal water supply, some local officials expressed concern about the future of the community's water. What would happen if the drinking watersheds were parceled up into hundreds or thousands of lots, with septic tanks and wells on each one? These kinds of concerns led the Chairman of the Board of Public Utilities to appoint the Watershed Task Force in 1983, which was directed to study potential threats to the local water supply and to make recommendations for lasting protection.

One Task Force recommendation called for a separate organization to be established to monitor the watersheds and coordinate policies related to watershed management. The new group was formed in August 1984 through an intergovernmental agreement between the city of Springfield, Greene County and City Utilities. Originally called the Watershed Management Coordinating Committee, the group incorporated as a state not-for-profit in 1989 and changed its name to Watershed Committee of the Ozarks.

Now nearing its 25th anniversary in August 2009, the Watershed Committee has remained true to its mission over all those years—protecting the sources of public drinking water for the Springfield-Greene County community. 2009 will also mark the tenth anniversary of planning for the Watershed Center at Valley Water Mill, a project intended as a focal point for community-based clean water efforts over the next twenty-five years, at least.

Once again, we ask you to review this annual report and provide feedback—questions, concerns, thoughts. Your assistance is needed to help us outline our specific responsibilities and to structure our programs. After all, we were formed by, and continue to operate under, the original agreement signed by you—our sponsors. You, in effect, created us, and therefore have a great stake in our success.

Sincerely,

Loring Bullard, Executive Director

2008 Board Members

Ted Hillmer, Chair; William H. Cheek, Vice Chair; Leslie Carrier, Secretary; David Roling, Treasurer; Robin Melton, Dan Chiles

2008 Staff

Loring Bullard, Executive Director; Matt Keener, Operations Manager; Kelly Guenther, Office Manager; Mike Kromrey, Education & Outreach Coordinator; Stacey Armstrong, Projects Coordinator; Kyle Kosovich, Projects Assistant



Pictured from left to right 2008 Staff in front of Valley Water Mill dam-
Mike Kromrey, Kyle Kosovich, Matt Keener, Stacey Armstrong, Kelly Guenther, Loring Bullard



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Monday-Friday
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Watershed Committee Highlights

Watershed Center Project

In 2008, the Watershed Committee surpassed the \$1 million mark in the capital campaign for the main building at the Watershed Center. Construction drawings for this LEED certifiable, energy and water efficient building have been completed by Butler-Rosenbury and Partners Architects in Springfield. The Committee and its partners made significant progress on construction work at the site during the year. In addition to the specific projects mentioned in this report, Kennedy ESS Contractors was hired in the fall of 2008 to complete initial site grading and the construction of the pad for the main education building. The building pad and temporary parking will be used to host special events at the site in 2009, including the 25th anniversary of the Watershed Committee. Detailed information about the Watershed Center is available on the Committee's website, www.watershedcommittee.org, and in various plans and documents at the Watershed Committee office, 320 N Main in Springfield.



Piers/Boardwalk

Construction was completed on two fishing piers and a connecting boardwalk on the east shore of Valley Water Mill Lake. Despite the wettest spring on record, construction stayed on schedule. These structures provide recreational and educational opportunities to the public, especially underprivileged and urban youth through fishing. Funding was made available through grants from Missouri Department of Conservation (\$49,500) and donations by suppliers including Meeks (\$1,000) and Herman lumber (material provided at cost, value approximated at \$7,742). Total Project Cost was \$98,074.



It is anticipated that more than 2,500 youth per year will utilize and benefit from the fishing piers through formal education activities. Additionally, more than 500 persons will benefit from the increased accessibility to recreation and passive learning opportunities provided by this facility. The Fishing Piers were completed by October 15th and dedicated on November 14th, 2008.

Forestry Learning Station

The Learning Station is located just off the Doline Loop Trail, on the edge of a pronounced sinkhole in the upland forest. Using a grant from the LAD foundation, volunteers organized by Dave Sturdevant built Leopold benches for the spot. The benches can accommodate a solitary hiker or a whole class. To add to the experience, three interpretive signs titled *Forests and Watersheds*, *Forest Management*, and *Forest Ecosystems* accompany the benches.



Water Quality Improvement Project (WQIP)

The Springfield-Branson On-Site Remediation Project is in its last year. \$400,000 in funding was awarded through the Water Quality Improvement Project in May 2006 to improve and protect water quality while enhancing economic development for municipalities, agriculture and tourism. The Watershed Committee of the Ozarks teamed up with Table Rock Lake Water Quality Inc. to demonstrate the remediation of wastewater systems that were failing to groundwater. This project is important because it provides improvements to water quality in areas where conventional systems fail. It also provides an educational opportunity to the landowners and wastewater installers on advanced treatment technology. Thirty site visits and evaluations have been completed, which have led to the installation of seven on-site wastewater systems. An additional five sites are scheduled to be installed by this summer. These sites will serve as demonstration sites for advanced wastewater training in the future and help homeowners understand the value of regular onsite system maintenance.



Little Sac Watershed Management Planning Grant

In 2008, the Watershed Committee completed the first year of a two year Watershed Management Plan for the Little Sac River, which is one of Springfield's main drinking water sources. The watershed plan facilitated three public stakeholder planning meetings. These committee meetings included a technical and landowner group. A number of groups are helping in this management plan, including City Utilities of Springfield, MSU, Drury, Ozark Greenways, Polk County NRCS, Greene County SWCD, Springfield Sanitary Landfill, Northwest Wastewater Treatment Plant, Springfield Public Works Stormwater Services Division and the Dickerson Park Zoo. This partnership of technical and private stakeholders in the watershed will ensure the formation of a successful management plan. The plan will contain a priority list of management practices that need to be implemented in order to improve and maintain water quality in the Little Sac River.

Community Onsite Wastewater and Stormwater Project (COWS)

The Community Onsite Wastewater and Stormwater Project was completed in July 2008. The Missouri Department of Natural Resources awarded this grant of \$185,750 to the Watershed Committee of the Ozarks. Nonfederal matching support of \$123,900 was provided through the Watershed Committee of the Ozarks and its partners, for a total project cost of \$309,650. All the milestones were completed, and 95% of the Federal funding was spent.

Onsite Wastewater Training Center (OWTC)

This Training Center serves as an outdoor classroom for onsite wastewater installers. The COWS grant and Water Quality Improvement Project helped to fund this collaborative project between Greene County and the Watershed Committee. In 2008, four classes of installers and over 100 homeowners attended education and demonstration events at the OWTC.



Trail Improvements

In 2008, the Watershed Committee received a \$100,000 Recreational Trails Grant through the Missouri Department of Natural Resources to complete the trail system at the Watershed Center. This grant was specifically geared towards connecting the Watershed Center to the surrounding neighborhoods via a bridge across the spillway dam, a stream crossing of the South Dry Sac creek, and a small trail extension. In addition, the WCO worked with a Boy Scout group to complete a smaller bridge connecting the Wetland Learning Station to the Springside Learning Station.

South Dry Sac Stream Crossing

Volunteers from the Mill Ridge neighborhood helped Ozark Greenways staff rough in a nature trail connecting their neighborhood to the South Dry Sac Greenway. The WCO, with the assistance of Greene County and the City of Springfield, installed a stream crossing on the South Dry Sac. This completed the trail connection from Mill Ridge to the Greenway, which leads directly to the Watershed Center.

Bridge over Spillway

In October, the last major segment of trail was finished with the installation of the Kelley-Stokes Pedestrian bridge. The bridge was dedicated on November 14th on a very blustery day, with more than 75 people in attendance. Representatives from Greene County, Missouri Department of Conservation, Missouri DNR State Parks, and the Community Foundation of the Ozarks participated in the dedication. The bridge is 105 feet long, made of 95% re-cycled steel, is decked with 100% recycled composite decking and painted with environmentally friendly paint. Construction and installation of the bridge were made possible with donations from the Titus Foundation, Doing Steele and Carson-Mitchell Inc.



Boy Scout Bridge

The “little bridge” at the Watershed Center was a big project. The stream that flows into the lake posed a major barrier to hikers and students in times of high water. With the help of Greene County, a motivated Boy Scout, and the North Side Rotary, our bridge is complete! The Jon Williams original design spans 29 feet and is about 9 feet over the stream bed in the center.



Water Quality

Source Water Protection Plan

City Utilities, in cooperation with Watershed Committee of the Ozarks, is working to create a Source Water Protection Plan (SWPP). Data gathered by Missouri Department of Natural Resources in 2004 will be utilized to assess the susceptibility of drinking water sources to contamination. The SWPP is not required, but is a voluntary process that is encouraged as a tool to safeguard local water supplies. The SWPP can provide for emergency response and educates citizens about water quality and protective measures that can be taken.

Springfield-Greene County Health Department Sampling

The Watershed Committee partnered with the Springfield-Greene County Health Department during the summer months to collect stream bacteria samples in local swimming holes throughout Greene County. The samples are collected once a week from May until September, and results are posted on the Health Department website for public access.



Water Quality Monitoring

The Watershed Committee monitors for nutrients and bacteria at eighteen sites in the Little Sac Watershed, a primary source for drinking water for Springfield and Greene County. Other tests include temperature, conductivity, dissolved oxygen, pH, phosphorus, nitrate, total coliform and E coli. The data is collected and analyzed monthly.

Valley Water Mill Monitoring

The Watershed Committee partnered with City Utilities to sample weekly bacterial levels at Valley Water Mill from April 2008 to March 2009. The study will evaluate fluctuations in bacteria levels and look for stormwater effects. A report summarizing the data will help focus better management practices on and around the site in the future.



Rader Farm

Despite two successive major ice-storms, Jerome Rader completed the first phase of the Rader Family Demonstration Farm. The Watershed Committee assisted him by cost-sharing on the installation of environmentally friendly farming practices. Here, local farmers can view practices including riparian tree restoration and livestock exclusion, alternative watering systems, and properly installed stream crossings for heavy equipment and machinery.



Education and Outreach

In 2008, the Watershed Committee averaged one event every 2.8 working days!

	<u>Quantity</u>	<u># Individuals</u>
Students Visiting Watershed Center		1,800
Watershed Event bookings:	89	
Professional Workshops		537
K-12 Education events		4,324
College Level events		425
Public/Community events		23,639
Website hits		10,000
Onsite Wastewater Training Center uses	4	
Media Releases:	4	
Interpretive Signs Created:	16	
New Publications	5	
*Total Number Reached		54,466

The Watershed Committee marketing efforts in 2008 were greatly enhanced by donations from Steak N Shake, Environmental Works and Sunbelt Environmental.

*Please see Appendix for a break down of events in 2008.

Highlights

Media Releases

The Watershed Center had four excellent media spotlights in 2008. Missy Shelton of KSMU (NPR), did a two part segment about the Watershed Center, environmental education, and climate change. The National Audubon Society sent a videographer to record the Together Green event at the Watershed Center to be used as a national showcase for the Together Green Project. Mike Kromrey was interviewed on KOLR 10 about the Onsite Wastewater Training Center.

Publications

Community Onsite Wastewater Stormwater Booklet
The Value of Protecting Missouri Streams (Matt Keener and Olson and Associates)
A Historied Creek, by Loring Bullard. Missouri Resources Magazine
Watershed of Information, by Victoria Lovejoy, Missouri Resources Magazine
How to Build a Rain barrel, WCO and JRBP

Signs (Interpretive)

These interpretive signs were created in 2008 to augment passive learning opportunities at the Watershed Center, and are posted on the Watershed Committee Website.

Beyond the Basin, Bioswale Sign, Detention Basin, Forests and Watersheds, Forest Management, Gabion Basket Wall, Lakeside Biology, Level Spreader Trench, Native Vegetation, Outlet Protection, Pervious Pavement, Rain Garden, Site Construction, Storm water 101, Water Treatment Process, Welcome to Onsite Wastewater Training Center

Education and Outreach cont.-

WOW, WDU and WOW School

Wonders of Watersheds (WOW) brought over 1,400 fifth grade students from local schools to the Watershed Center. A grant from the Community Foundation of the Ozarks and partnership with Wonders of Wildlife and Springfield-Greene County Parks allowed students to learn about their watershed.

Wonders Down Under (WDU) was a successful program from 2007 that was brought back by popular demand. Ninety-two area fifth grade students toured Giboney Cave, visited the stream trailer and saw live animals, learning about the importance of clean water above and below ground.

The Wonders of Wildlife National Outdoor Recreation and Conservation School (WOW School) teaches participants how to enjoy a wide range of outdoor recreation activities while practicing personal safety and environmental responsibility. Each course includes an outdoor skill, conservation, safety, and ethics component. WCO participated in two WOW Schools in 2008, making beginner stream ecology available for the 261 participants.

WOLF at the Watershed: by Mike Kromrey

Over the last year, the Wonders of the Ozarks Learning Facility (WOLF school) has developed into an outstanding resource for our local youth. During my four interactions with the WOLF school during the fall semester, I noticed that the students are more motivated and excited about school than with any other class, public or private, that I have ever seen. Without a doubt, students are getting positive, meaningful life experiences while receiving their education. The teachers, Susan Dyle and Rebecca Ziegler, have taken the challenge of this innovative program in stride, and they have been the catalyst for making the WOLF school work.



As a non-formal educator with the Watershed Committee of the Ozarks, I often find bringing the message of clean water to public school students a challenge. We can tailor lessons for any subject, and any learning expectations (MIG's, GLE's, etc.), but still face barriers in bringing our resources to students. The flexibility of the WOLF school curriculum and the ability to take more field trips allows community resources like the Conservation Department, Master Naturalists, and Watershed Committee to be more involved with the students and teachers.

Watershed Festivals

The James River Basin Partnership holds Watershed Festivals every year, and WCO is a strong supporter. In 2008 we pledged volunteer(s) or staff to every Festival held, and ran about 1,500 regional fifth graders through an intense day of fun and water education.

Education and Outreach cont.-

Stormwater for Professionals

The Watershed Committee partnered with the City of Springfield's Stormwater Services Division on the educational workshops about the new Storm water Design Criteria Manual and Erosion Control guidelines. We provided help in editing the manuals, workshop setup, and publicizing events using our email list serve, as well as attending and helping with the workshops.

Another cooperative project has been the Stormwater 101 interpretive signs, designed to be placed at the Watershed Center and other points of stormwater interest in town (like Jordan Creek). Another suite of interpretive signs was produced for the Stormwater Demonstration Area at the Watershed Center (a component of the COWS grant). The Watershed Center will have about ten best management practices (e.g. pervious concrete, bioswales, rain gardens) demonstrated in a small area, and each BMP will have interpretive signage. In the future, the Site and Center will accommodate stormwater training classes.

Together Green

Together Green is designed to involve citizens in creating a brighter, healthier future. It is a dynamic and innovative Audubon program funded by Toyota that aims to provide inspiration, leadership and opportunities that inspire people everywhere to take action at home and in their communities to improve the health of our environment.

The Watershed Center partnered with the Greater Ozarks Audubon, Springfield Conservation Nature Center, and the Springfield Plateau Master Naturalist to conduct two major Together Green volunteer events. The first event had over 150 volunteers, and was professionally filmed for The National Audubon website. Volunteers collected biological data and worked on various projects around the Watershed Center, donating over 500 hours of volunteer work in one day! The second event produced about 20 nesting boxes to improve the bird habitat at the Watershed Center.

Groundwater Guardian

Groundwater Guardian (GG) encourages communities of all types (cities, counties, watersheds, etc.) to begin and enhance groundwater education and protection activities. Groundwater Guardian supports communities in their efforts and recognizes their achievements. The Watershed Committee helped achieve Groundwater Guardian status for Greene County for the thirteenth consecutive year.

Groundwater Green Site

The Watershed Center was accepted by the Groundwater Foundation as the only regional site registered to date. The Groundwater Guardian (GG) Green Site program recognizes good stewards of groundwater by encouraging managers of highly-managed green spaces (golf courses, ball fields, education campuses, parks, etc.) to implement, measure, and document their groundwater-friendly practices related to chemical use, water use, pollution prevention, water quality, and environmental stewardship

Education and Outreach cont.-

Missouri Environmental Education Association (MEEA)

MEEA's mission is to provide innovative professional development and networking opportunities for Missouri's environmental educators, both for teachers in the classroom and for educators in agencies and organizations. These educators help Missourians become more environmentally responsible. WCO is a long time supporter of MEEA, and in 2008 Mike Kromrey was elected as a board member for the organization. For the first time ever, the MEEA annual conference will be held in the Springfield area in 2009, and we will help make it a huge success.

Show Me Yards and Neighborhoods

SMYN is an educational program designed to raise awareness about the role urban stormwater runoff plays in the water quality of nearby streams, creeks, rivers, and lakes. Through voluntary educational activities, SMY&N offers environmentally responsible alternatives to traditional lawn care and construction practices. SMY&N also recognizes individuals and professionals who put the SMY&N techniques into practice - homeowners can earn an attractive yard sign and professionals can become certified. Choose Environmental Excellence, the City of Springfield, Greene County, Greene County Soil and Water Conservation District, and MU Extension and WCO partner on the project.

Adopt a Spring

Adopt a Spring is a volunteer water quality monitoring program. Trained volunteers collect water samples quarterly from the major springs with public access in Greene County.

Project WET (Water Education for Teachers)

The Watershed Committee assisted Missouri State University and the City of Springfield in successfully bringing the statewide Project WET program to Springfield. The mission of Project WET is to reach children, parents, educators, and communities of the world with water education. This joint effort will allow for the continuation of the popular education program for teachers statewide. The Project WET coordinator will office at the Watershed Center upon completion of the Education building.

Price Cutter Championship

The Watershed Committee was instrumental in providing recycling stations at the Price Cutter Charity Championships. This was the first time recycling had been attempted at this event. WCO staff also manned an informational booth about the Watershed Committee and the Watershed Center at the event.

Jordan Creek Book

The Watershed Committee and the City of Springfield Stormwater Division published "Jordan Creek: Story of an Urban Stream" as part of the educational series of the Watershed Center. This book explores the public works history of Jordan Creek and the impacts of urbanization on its watershed.

Education and Outreach cont.-

“Clean Water Day” with Springfield Cardinals

Springfield Cardinals and the Watershed Committee promoted clean water education and conservation at the home game on Monday August 25, 2008. The night included water trivia every inning, free WCO water bottle give- a-ways, and free autographed copies of the book “ Consider the Source” by Loring Bullard. Water trivia and signage were displayed in the stadium and water conservation materials were available to the public throughout the Springfield Cardinals season.

Special Events

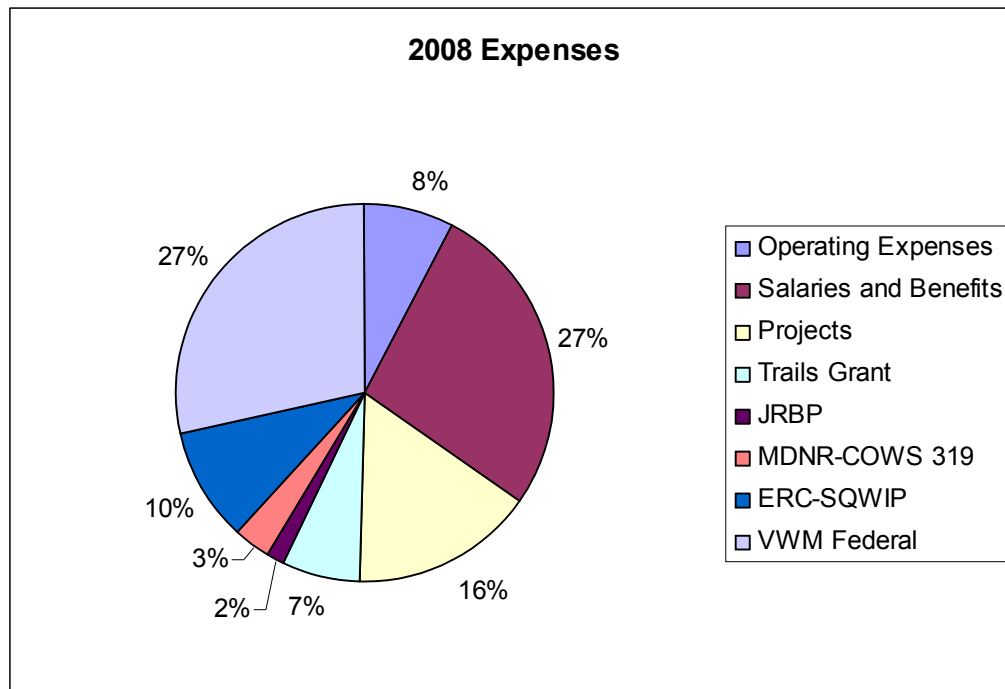
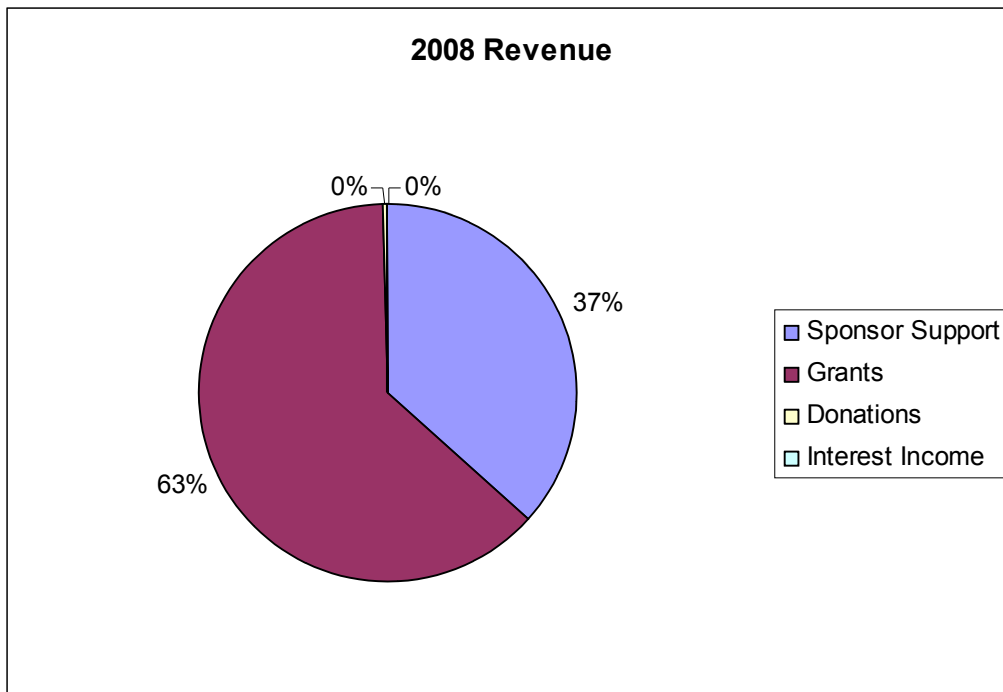
In May, the Watershed Committee had a booth at Arts Fest and held a Stream Critter Drawing Contest for the kids. Stream Critters, including crawdads, beetles, mayfly and dragonfly larvae were available in a container so the kids could see, touch and draw them. Chelsea R. was the winner and we printed kids t-shirts with her crawdad drawing.

The Watershed Committee, in collaboration with the Tri-State Water Resources Coalition, hosted a conference called “Our Water Future: The Regional View”, in Joplin in September 2008. Over one-hundred fifty people attended this important conference, which featured experts on the regional water situation as well as speakers from Atlanta, Seattle, and Tucson discussing the special challenges facing those communities.

The Watershed Committee also co-hosted two important dignitaries during the year. In October, Richard Louv, author of “Last Child in the Woods”, was in Springfield to discuss his ideas on “nature deficit disorder” and how to get kids excited about the outdoors. As part of this community-wide event, the Watershed Committee held a workshop with Louv and area educators at Bass Pro Shops. Louv also was taken on a tour of the Watershed Center, where he met with regional education leaders and interacted with kids enrolled in the Springfield School Systems’ WOLF School Program.

In December, the Watershed Committee helped to host Justice Bill Hobbs of Colorado. Hobbs, who was in the city to meet with several groups on the topic of “water law”, was also taken on a tour of the Watershed Center site. He spoke of the Watershed Center and the importance of water education at his public affairs presentation at the Plaster Student Union at MSU.

2008 Revenue and Expenses



Grant Activity

Grant Project	Date initiated	Total Grant	Non-Local Funds
Greene County GIS Project	1988	\$325,000	\$235,500
Fullbright 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
Fullbright 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	\$1,400,000
Community On-Site	2006	\$609,650	\$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
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
Total		\$5,255,773	\$4,161,125