

## **Lower Shoal Creek Watershed Management Plan**

The Shoal Creek Watershed Partnership (SCWP) began as a project of Environmental Task Force of Jasper and Newton Counties (ETF) to establish community-based watershed management for lower Shoal Creek watershed. Initial organizational assistance was made available to Jasper and Newton County community leaders from the U.S. Environmental Protection Agency (EPA) through its Springfield, Missouri, field office and from the Elk River Watershed Improvement Association (ERWIA), based in Pineville, and the upper Shoal Creek Watershed Improvement Group (SCWIG), based in Wheaton, through the southwest Missouri Water Quality Improvement Project (WQIP).

Initial organizational efforts included monthly "stakeholder" meetings during the summer of 2006 to discuss water quality concerns and watershed issues and to identify priority actions. These monthly meetings resulted in identification of three fundamental steps for community-based watershed management: 1) Compiling existing data on water quality conditions; 2) Identifying sources of water quality problems; and, 3) Identifying and implementing actions to address those problems. Additional outputs from the initial monthly meetings included creation of a Mission Statement and identification of Priority Geographic Areas and Priority Resource Concerns. Another output from these meetings was the identification of Priority Actions for water quality planning and watershed management within the lower Shoal Creek drainage basin.

### Executive Summary

A Watershed Restoration Action Strategy (WRAS) grant from the Missouri Department of Natural Resources was awarded to the Harry S. Truman Coordinating Council in February 2007 for \$30,000 to accelerate community-based watershed management for lower Shoal Creek. The WRAS project has three objectives:

- 1) Directly involve diverse groups of stakeholders in refining water quality and quantity issues and defining actions and projects to improve water and land management to restore and protect waters of the lower Shoal Creek watershed;
- 2) Prepare a WRAS for the lower Shoal Creek watershed and initiate those activities and programs identified in the WRAS that may require immediate action; and,
- 3) Provide for ongoing public information and citizen involvement in activities and programs identified in the WRAS, to address primarily nonpoint source pollution from both urban and agricultural sources in the lower Shoal Creek watershed.

Since February 2007, the SCWP has developed an organizational structure to provide feedback on the WRAS project to administrators and to provide for continued development of data and information needed for implementation of technical and educational aspects of water quality improvements and community-based watershed management.

### Structure

An Executive Board was established in January 2007 after consultation with the ETF's board of directors. The Executive Board provides guidance and oversight of SCWP

activities. The Executive Board is chaired by Jerry Carter, Newton County Presiding Commissioner is further comprised of the following representatives: Neosho city manager, Newton County Health Department administrator, former public school teacher and principal; large animal veterinarian; Missouri Southern State University (MSSU) regional economic development center executive director; MSSU professor of biology and administrator; and, Pittsburg State University professor of biology and administrator. An ex officio member of the Executive Board is Dr. Eugene Miekley, Doctor of Veterinary Medicine in Barry County and president of Shoal Creek Watershed Improvement Group (SCWIG) serving as liaison between the SCWP and SCWIG. SCWP formed a Technical Committee chaired by Bob Kulp and an Education Committee chaired by Jack Andris. These committee chairmen invited local stakeholders and agency representatives to be involved in their meetings and activities beginning in February 2007. SCWP has a Finance Committee that is chaired by Harry Rogers, Executive Director of the Harry S. Truman Coordinating Council (HSTCC). HSTCC's Craig Jones is providing staff support for the SCWP in general and staff support for the Watershed Restoration Action Strategy grant from the Missouri Department of Natural Resources.

SCWP also formed an Advisory Committee comprised of representatives of various state and federal government agencies, including universities. The purpose of the Advisory Committee is to provide technical assistance in support of SCWP's activities. A complete list of board and committees, including contact information, is incorporated herein as Attachment A.

### Mission Statement

The mission of the SCWP is to protect, conserve and restore water quality and quantity through scientific and education programs for all who receive the benefits of Shoal Creek. This mission statement was developed during the monthly meetings of the stakeholders group during the summer of 2006.

### Stakeholders

The stakeholders group that was convened for monthly meetings during the summer of 2006 was comprised of diverse elements of the Shoal Creek community. It is assumed that broad-based community involvement is essential to successful efforts to reduce nonpoint source pollution from entering the streams in Shoal Creek watershed. Monthly meetings during the summer of 2006 also resulted in identification of Priority Geographic Areas (PGA) and Priority Resource Concerns (PRC).

The list of PGA developed during these monthly stakeholders meetings included:

- Where large number of people are already potentially impacted (Neosho, Joplin);
- Where cities use water for drinking and wastewater;
- Areas adjacent to creeks with Confined Animal Feeding Operations;
- Areas with severe soil potentials for standard septic systems;
- Intersection of major tributaries;
- Public access points, including bridges;
- Agricultural areas where litter is spread;

- Sludges from municipal treatment plants;
  - Old mining sites within Shoal Creek tributaries;
  - Water quality of Empire Lake as indicator; and,
  - Water quality/macro inverts very good at KS/MO state-line vs. below Joplin.
- The list of PRCs developed during these monthly stakeholders meetings included:
- Financial Resources, especially the Environmental Task Force, a 501(c)3 organization with the ability to seek grant funding for water quality testing (on-site and in labs) and for demonstration of Best Practices;
  - Volunteers, public outreach, education;
  - Recreation opportunities, such as businesses that provide outfitter services;
  - University resources;
  - Impact from floaters' littering;
  - Collaborative efforts with other watershed groups;
  - Water supply for people, livestock, wildlife;
  - Maintaining stream and riparian corridor for wildlife;
  - Enforcement of hypothetical new program implementation;
  - Sustainability of watershed improvement activities; and,
  - Time for pulling everything together.

In February 2007, the stakeholders group was reconvened and is expected to continue meeting on a quarterly basis. The primary purpose of these meetings is to continue receiving input from landowners and other citizens in the target area to help guide water quality planning and watershed management. These meetings will serve as one avenue for informing stakeholders and the general public on water quality issues and for reporting progress of SCWP watershed management efforts.

### Strategic Issues, Goals and Objectives

SCWP is undertaking six steps for community-based watershed planning. As related to SCWP, these steps are outlined and described below:

- Build Partnerships - SCWP is a product of partnerships between the ETF, HSTCC, U.S. EPA and neighboring watershed alliances ERWIA and SCWIG. Partnerships are expanding to include other civic, community and agency organizations within the Shoal Creek watershed in both public and private sectors.
- Characterize Watershed - Much water quality data collection has occurred in the Shoal Creek and its tributaries in Missouri and Kansas. A data-gap analysis for the entire Spring River is expected to be complete by Environmental Resources Coalition's WQIP by the fall 2007. Additional water quality data collection is anticipated to occur during summer 2007 as part of the work of the Newton County Health Department. Land use/land cover data analysis and production of a land use map is anticipated to occur during the summer/fall of 2007 as part of the WRAS project with assistance from the NRCS South Missouri Water Quality Project.
- Set Goals, Identify Solutions - During the last stakeholders meeting, priority actions were rated by stakeholders resulting in the following top six actions:
  - Data Management - coordination of existing monitoring data, ongoing data collection, determination of stream conditions, communication of data.
  - Lower contaminants - bacteria, nutrients, toxics

- Stream Team events - clean up, monitoring
- Total Maximum Daily Load (TMDL) development
- Identification of point source problems
- Conservation and lowering usage of water resources
- Design Implementation Program - Pending completion of the WRAS
- Implement the Plan - Pending commitment of additional resources
- Monitor Progress, Make Adjustments - Pending commitment of additional resources

SCWP anticipates using these six steps to undertake the development of a "nine-element" watershed management plan. The first phase of the development of this watershed management plan is the development of the WRAS. The nine elements of an EPA watershed management plan are listed and described in Attachment B.

### Communication Strategies

SCWP is organized to provide for clear and consistent communication networks, both internally within the organization, as well as, externally with the general public. Internal communication includes that between the SCWP executive board and the ETF board and staff of the HSTCC, as well as that communication among the SCWP committees and the stakeholders.

SCWP executive board and its technical and educational committees will continue to strengthen communication by reporting outputs and outcomes from regular monthly meetings. SCWP and its stakeholders will continue to strengthen communication through quarterly stakeholder meetings and receiving feedback on progress reports of the WRAS project and other water quality and watershed management activities in the Shoal Creek watershed. Internal communications also include that which occurs between the SCWP executive board and committees and various state and federal agencies.

External communication includes media relations and communications with the general public. Several methods of communication with additional stakeholders and the general public are anticipated and may include:

- Public announcement of quarterly stakeholder meetings;
- Participation by SCWP volunteers at community events, such as the Newton County Fair;
- Attitudinal surveys of individuals representing various stakeholder groups;
- Regular contribution of letters-to-the-editor and Public Service Announcements to local print and broadcast media; and,
- Print and broadcast media news coverage of special events conducted by SCWP, such as stream cleanups and water awareness festivals.

## Fiscal Strategies

Resource development is an important component of SCWP's water quality planning and watershed management strategies. SCWP anticipates pursuing state and federal grants in cooperation with ETF, HSTCC and other appropriate partners.

Currently, SCWP is receiving technical assistance through a grant for the WRAS project to HSTCC. In addition, the HSTCC and SCWP continue to receive technical assistance from the ERWIA and SCWIG through the southwest Missouri WQIP.

At some point, the SCWP may consider incorporating as a stand alone not-for-profit corporation and pursuing a 501(c)(3) designation from the U.S. Internal Revenue Service. In the foreseeable future, SCWP will remain a project of the ETF and cooperate with the staff resources of other agencies and organizations. If at some point the SCWP decides to become an independent organization, a staffing plan for SCWP may become necessary.

Attachment A

**ENVIRONMENTAL TASK FORCE OF JASPER AND NEWTON COUNTIES  
LOWER SHOAL CREEK WATERSHED MANAGEMENT PLAN  
EXECUTIVE BOARD**

Jack Andris  
8750 Riverview Drive  
Neosho , MO 64850  
417-325-6242  
[jandris@jscomm.net](mailto:jandris@jscomm.net)

Dr. John Messick  
Missouri Southern State University  
3950 E. Newman Road, Room HH-318  
Joplin, MO 64801  
417-625-9341  
[messick-j@mssu.edu](mailto:messick-j@mssu.edu)

Jan Blase, City Manager  
City of Neosho  
203 E. Main  
Neosho, MO 64850  
417-451-8050  
[administration@neoshomo.org](mailto:administration@neoshomo.org)

Dr. Tom Simpson  
Missouri Southern State University  
3950 E. Newman Road, Room WH-239  
Joplin, MO 64801  
417-625-3016 ext 3112  
[simpson-t@mssu.edu](mailto:simpson-t@mssu.edu)

Jerry Carter, Presiding Commissioner  
Newton County Commission  
Newton County Courthouse  
Neosho, MO 64850  
417-451-8223  
[commission2@swbell.net](mailto:commission2@swbell.net)

Dr. Jim Triplett  
Biology Department  
220 Heckert Well Hall  
Pittsburg, KS 66762  
[triplett@pittstate.edu](mailto:triplett@pittstate.edu)

Dr. Harold Haskins  
Doctor of Veterinary Medicine  
20160 Hwy J  
Diamond, MO 64840  
417-325-4136

Bob Kulp, Administrator  
Newton County Health Department  
P . O. Box 447  
Neosho, MO 64850  
417-451-3743  
[kulpb@lpha.dhss.mo.gov](mailto:kulpb@lpha.dhss.mo.gov)

**ENVIRONMENTAL TASK FORCE OF JASPER AND NEWTON COUNTIES  
LOWER SHOAL CREEK WATERSHED MANAGEMENT PLAN  
COMMITTEE CHAIRS**

Education Committee

Jack Andris  
8750 Riverview Drive  
Neosho , MO 64850  
417-325-6242  
[jandris@jscomm.net](mailto:jandris@jscomm.net)

Executive Committee

Jerry Carter, Presiding Commissioner  
Newton County Commission  
Newton County Courthouse  
Neosho, MO 64850  
417-451-8223  
[commission2@swbell.net](mailto:commission2@swbell.net)

Technical Committee

Bob Kulp, Administrator  
Newton County Health Department  
P . O. Box 447  
Neosho, MO 64850  
417-451-3743  
[kulpb@lpha.dhss.mo.gov](mailto:kulpb@lpha.dhss.mo.gov)

Finance Committee

Harry Rogers, Executive Director  
Harry S. Truman Coordinating Council  
P. O. Box 388  
Webb City, MO 64870  
417-782-3515  
[hrogers@hstcc.us](mailto:hrogers@hstcc.us)

**ENVIRONMENTAL TASK FORCE OF JASPER AND NEWTON COUNTIES  
LOWER SHOAL CREEK WATERSHED MANAGEMENT PLAN  
ADVISORY COMMITTEE**

Karen Cass  
Missouri Department of Natural Resource  
P. O. Box 176  
Jefferson City, MO 65102  
573-751-7879  
[karen.cass@dnr.mo.gov](mailto:karen.cass@dnr.mo.gov)

Robert Nichols  
Newton-Jasper Environmental Task Force  
One South Main Suite 102  
Webb City, MO 64870  
417-673-7151  
[bnichols66@sbcglobal.net](mailto:bnichols66@sbcglobal.net)

D. Mark Doolan  
U.S. Environmental Protection Agency  
901 N. 5th Street  
Kansas City, KS 66101  
913-551-7169  
[doolan.mark@epa.gov](mailto:doolan.mark@epa.gov)

Harry Rogers, Executive Director  
Harry S. Truman Coordinating Council  
P. O. Box 388  
Webb City, MO 64870  
417-782-3515  
[hrogers@hstcc.us](mailto:hrogers@hstcc.us)

Jaci Ferguson  
U.S. Environmental Protection Agency  
901 St. Louis Street, Suite 200-13  
Springfield, MO 65806  
417-575-8028  
[ferguson.jaci@epamail.epa.gov](mailto:ferguson.jaci@epamail.epa.gov)

Dr. Sean Terry  
Drury University  
1405 W. Westview  
Springfield, MO 65807  
417-873-6963  
[sterry@drury.edu](mailto:sterry@drury.edu)

Drew Holt  
University of Missouri Extension  
833 Boonville Avenue, 2nd Floor  
Springfield, MO 65802  
417-862-9284 ext 28  
[holtdm@missouri.edu](mailto:holtdm@missouri.edu)

Betty Wyse  
3116 Emerald Lane  
Jefferson City, MO 65109

Lynn Jenkins  
NRCS  
1900 S. Hwy 71  
Neosho, MO 64850  
417-451-1007  
[lynn.jenkins@mo.usd.gov](mailto:lynn.jenkins@mo.usd.gov)

## Attachment B

### **EPA'S SUPPLEMENTAL GUIDELINES FOR AWARD OF 319 NPS GRANTS: NINE KEY ELEMENTS OF A WATERSHED MANAGEMENT PLAN**

1. IDENTIFY CAUSES AND SOURCES OR GROUPS OF SIMILAR SOURCES - An identification of the causes and sources or groups of similar sources that will need to be controlled to achieve the load reductions estimated in this watershed-based plan (and to achieve any other watershed goals identified in the watershed-based plan), as discussed in item 2 immediately below. Sources that need to be controlled should be identified at the significant subcategory level with estimates of the extent to which they are present in the watershed (e.g., X number of dairy cattle feedlots needing upgrading, including a rough estimate of the number of cattle per facility; Y acres of row crops needing improved nutrient management or sediment control; or Z linear miles of eroded stream bank needing remediation).
2. ESTIMATE EXPECTED LOAD REDUCTIONS - An estimate of the load reductions expected for the management measures described under paragraph 3 immediately below (recognizing the natural variability and the difficulty in precisely predicting the performance of management measures over time). Estimates should be provided at the same level as in item 1 above (e.g., the total load reduction expected for dairy cattle feedlots; row crops; or, eroded stream banks).
3. DESCRIPTION OF NON-POINT SOURCE MANAGEMENT MEASURES - A description of the NPS management measures that will need to be implemented to achieve the load reductions estimated under paragraph 2 above (as well as to achieve other watershed goals identified in this watershed-based plan), and an identification (using a map or a description) of the critical areas in which those measures will be needed to implement this plan.
4. ESTIMATE OF FINANCIAL AND TECHNICAL ASSISTANCE NEEDED - An estimate of the amounts of technical and financial assistance needed, associated costs, and/or the sources and authorities that will be relied upon, to implement this plan. As sources of funding, States should consider the use of their Section 319 programs, State Revolving Funds, USDA's Environmental Quality Incentives Program and Conservation Reserve Program, and other relevant Federal, State, Local, and Private funds that may be available to assist in implementing this plan.
5. INFORMATION/EDUCATION TO ENHANCE UNDERSTANDING AND ENCOURAGE PARTICIPATION - An information/education component that will be used to enhance public understanding of the project and encourage their early and continued participation in selecting, designing, and implementing the NPS management measures which will be implemented.
6. IMPLEMENTATION SCHEDULE - A schedule for implementing the NPS management measures identified in this plan that is reasonably expeditious.
7. DESCRIPTION OF MEASURABLE MILESTONES - Establish a description of interim, measurable milestones for determining whether NPS management measures or other control actions are being implemented.
8. DETERMINE WHETHER LOADING REDUCTIONS ARE ACHIEVED - Establish a set of criteria that can be used to determine whether loading reductions are being

achieved over time and substantial progress is being made towards attaining water quality standards and, if not, the criteria for determining whether this watershed-based plan needs to be revised or, if a NPS TMDL has been established, whether the NPS TMDL needs to be revised.

9. PLAN MONITORING, EVALUATION, REVISION - Establish a monitoring component to evaluate the effectiveness of the implementation efforts over time, measured against the criteria established under paragraph 8 immediately above.