

South Central Kansas Water Coalition progresses

It seems to be a bit unusual that no one is taking credit, but funding has been provided to conduct a study of the water resources and water supply capacity of the Walnut River Basin in South-central Kansas.

Funds were provided to the United States Bureau of Reclamation (USBR) in 2005, but why this happened, and who caused it to happen, is a mystery. The Kansas Water Office knows that information about the existing resources and future demands of the region is critical for successful planning, and they were quick to begin discussions with the Bureau, regardless of who was instrumental in providing this gift of funding.

Walnut River geography

The Walnut River headwaters are located in northeast Butler County, near Cassoday, the Prairie Chicken Capital of Kansas. The drainage basin includes almost all of Butler County, a significant part of Cowley County and smaller areas of Sedgwick, Harvey, Marion, Chase, Elk and Sumner counties.



*Doug Helmke
Ground Water,
Water Rights Tech*

The Walnut River flows to the south-southwest, ending its journey at its confluence with the Arkansas River at Arkansas City, Kansas. Its total length is approximately 147 miles and drains an area of approximately 2,009 square miles.

The city of El Dorado uses water from the Walnut River and sells to a dozen or so cities, rural water districts, a refinery and a public wholesale water supply

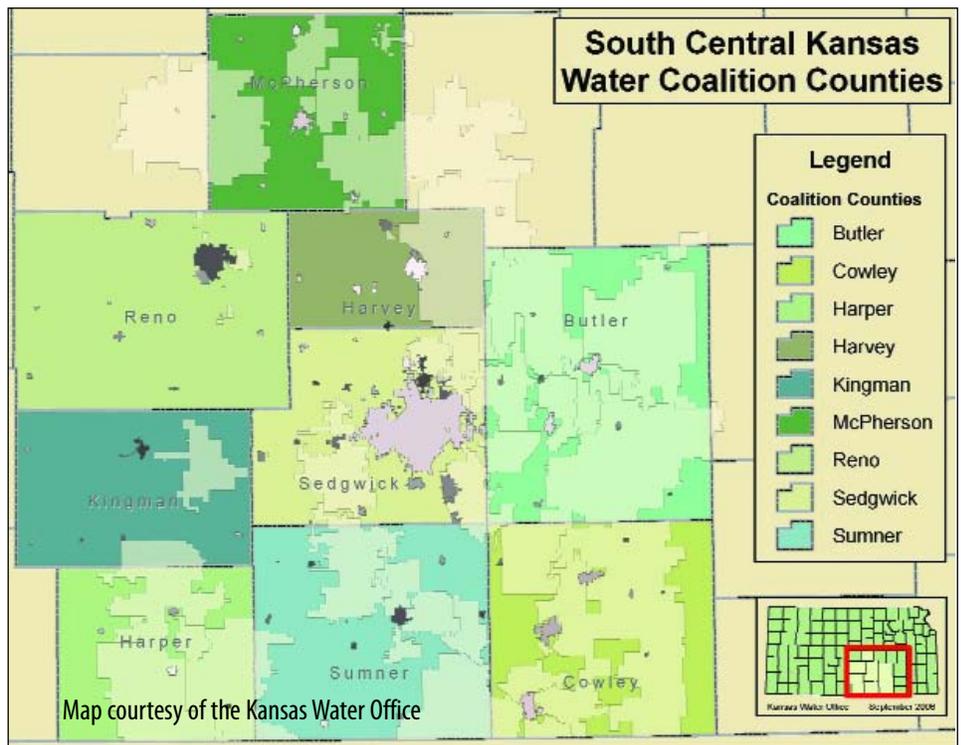
Water coalition takes shape

Coincidentally, just months before the Bureau of Reclamation contacted the Kansas Water

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district in the area. Likewise, the city of Winfield also draws on water in the Walnut Basin and sells to approximately 10 cities and rural water districts. A dozen water systems, including El Dorado and Winfield, own municipal water rights in the Walnut River Basin.

Office, it was conceived that communities should organize with a focus on the challenge of securing and delivering water for future growth. The South Central Kansas Water Coalition was organized with 21 city and county governments and a previously



existing economic coalition, from Butler, Cowley, Harper, Harvey, Kingman, McPherson, Reno, Sedgwick and Sumner counties. The Coalition's stated purpose is to preserve and enhance water resources, to provide water related education to local leaders and to serve as a united organization in discussions with state and federal agencies.

The Kansas Water Office was pleased to learn of the creation of this coalition of communities interested in water and their future. An organization of this nature could likely streamline the exchange of information and reach solutions more efficiently. Likewise, a federal partner to help fund a study of water resources was also gladly welcomed.

It wasn't long before it was asked, "What if we bring these two together?" "Is it possible to expand the study to include the Lower Arkansas River Basin in the nine county area in the study and will the South Central Kansas

Water Coalition work with the state and federal agencies in this study?" The answer was a resounding "Yes!" to both questions. With this merger, the scope of the project increased in size and expectations.

One of the first items that the three original partners wanted was a comprehensive workgroup. The Kansas Department of Health and Environment's Public Water Supply Section, the Division of Water Resources' Stafford Field Office and the Kansas Rural Water Association were asked to participate in the project. The Public Water Supply Section already had an existing process of surveying water systems which would likely be helpful to the project. The Stafford Field Office is the primary local

point of contact for water rights. The Kansas Rural Water Association is the primary resource for many of the smaller water systems in the area and can lend additional support for water rights. All three agreed.



Walnut River headwater area in northeast Butler County.

Getting the project started

To start the project, three informational meetings were held on March 9, 2006, in Hutchinson, Andover and Wellington. These meetings conveyed the purpose of the project, how the project would

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likely impact future water planning and development for water systems and how assistance would be provided to complete the survey and for water right reviews.

At the conclusion of the meetings, representatives of the water systems in attendance were given information about the project and a copy of the survey. Those that did not attend received the information by mail. This survey is a condensed and modified version of one sent regularly to water systems to gauge technical, financial and managerial capacity, or TFM.

The survey

The survey for this project consisted of only 13 questions. Half of the survey included questions about the water system's water rights. A quarter of the questions were about water quality and perceived threats to the quality. The remaining questions covered the ability and interest in inter-local agreements to purchase and sell water.

Surveys were given or sent to 130 water systems in the area and the return rate has been excellent. As of September, 2006, over 80% of the surveys have been returned. Unreturned surveys were mainly from water systems that already purchase water from a regional supplier and do not own any water rights.

Report details

Of the survey respondents, 27 water systems indicated that they would like a report which explains water rights in greater detail. Of the 27 systems, nine will get reports from the Division of Water Resources and 18 will get reports from the Kansas Rural Water Association. It is estimated that the Division of Water Resources and Kansas Rural Water Association will complete these reports by September 30, 2007.

These water right reports will include the water right file numbers, the priority dates, some history about the water rights including the changes that may

have been approved in the past, the currently authorized rates of diversion with annual quantities and the authorized places of use. If there are any additional restrictions, such as quantity limitations when combined with other water rights, those will be explained. Past water use records will be reviewed to determine if any wells and water rights have a record of diverting more water than authorized. Kansas Water Office water demand projections will be provided and compared to current use and authorized quantities, so water systems can start making determinations of future needs. In some cases, the availability of water for additional appropriation will be determined. If a community owns other water rights for non-municipal beneficial uses, such as an irrigation water right for a golf course or park, those will be included in the report.

Another goal, which is probably the most ambitious of the project, is to compile a list of all technical papers and reports regarding water and water use in the nine county area and if possible, create both an on-line and physical library. The Kansas Geological Survey has what is likely the largest bibliography for Kansas, but it is likely that the Survey does not have everything related to south-central Kansas. The age and availability of the desired publications may also be an issue, especially for the creation of a physical library.

A quick internet search by this author found that a geology report for the area was published as early as 1878 by the Kansas State Board of Agriculture. Other publishers of this kind of information include the United States Geological Survey, the Kansas Geological Survey, the Kansas Department of Transportation, Kansas Academy

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of Science and others. The reports of private consultants would also be an excellent resource in the bibliography when the owners of these reports release the information to the Coalition. Having all of the pertinent reports

reality include converting the text of these old documents to digital formats and digital storage. The conversion process will be time consuming and likely expensive. Decisions on how and where to store the documents and how to

make this information available, digitally and physically, are being studied.

Related efforts

Mapping of water system facilities and boundaries was not chosen to be a component of this study. While maps can provide information that explains the spatial relationships within

an area and among neighboring areas, the Kansas Water Office is already in the middle of a project to provide updated maps for the

entire state of Kansas. (See KWO map on page 30) Efforts to compile information for maps in this project would be redundant.

Estimates and needs

Because it is estimated that more than 25% of the water systems in this area do not currently have the supply of water they need to meet the anticipated demand of 2050, this project will begin the planning that needs to occur now. It is believed that water supplies are available in the area to meet this demand, however, these supplies are not located in the immediate vicinity of those water systems needing the water. Compiling the information about water rights, hydrology reports, water treatment and distribution, water demand, water quality and existing contractual obligations should lead to important observations and decisions which will benefit the residents of the study area and the state of Kansas.

South Central Kansas Water Coalition Membership

- Andover
- Arkansas City
- Bel Aire
- Derby
- El Dorado
- Hesston
- Hutchinson
- Maize
- McPherson
- Newton
- Park City
- Rose Hill
- Sedgwick
- Valley Center
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- Wichita
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