



## **Middle Kansas WRAPS Meeting Summary**

**Thursday, January 17, 2008**

Bredeaux Pizza,  
1705 Commercial Circle #1  
Wamego, KS

**Rick Davis, Middle Kansas WRAPS Coordinator**, welcomed everyone. Attendees introduced themselves and the organization they are affiliated with. Meeting attendees included Granville Davison, Will Boyer, Bob Lienemann, Doug Helmke, Mary Howell, Carol Blocksome, Dennis Schwant, Shelly Buhler, John Bond, Marty Burke, Frank Norman, Dea Brokesh, Eric Banner, Jaime Gaggero, Tom Stiles, Sherry Davis, Scott Schwinn, Thad Rhodes, and Roberta Spencer.

### **Presentations:**

#### **Dean Krehbiel – NRCS – Salina Middle Kansas Rapid Watershed Assessment (RWA)**

Dean Krehbiel gave an overview of the document completed by NRCS and KDHE. Rapid Watershed Assessment (RWA) include the following components:

- Known GIS information
- An assessment matrix
- A common resource area map, that is soils driven
- A precipitation map
- A land use map
- Resource concerns
- Water quality data
- Conservation data
- A cumulative conservation status
- Future conditions – What would likely be done to address resource concerns, including projected costs for cropland, irrigation, grazed range, pasture and hayland, and animal feeding operations. The compiled forms were completed in-office, with limited ground truthing. Data was averaged from all county data, not weighted.
- The Middle Kansas Rapid Watershed Assessment can be downloaded at [www.ks.nrcs.usda.gov](http://www.ks.nrcs.usda.gov) Go to “Technical Resources” then “Watershed Assessments”

## **Tom Stiles, KDHE – Watershed Planning Section**

### **Relative Comparable Water Quality Among Streams in the Upper and Middle Kansas Subbasins**

A simple, qualitative approach was used to rank the 19 stations located on tributaries to the Kansas River in the Upper and Middle Kansas Subbasins. Complete period of record data for Total Nitrogen, Total Phosphorus, Total Suspended Solids, and E coli bacteria were used for all stations. Average values were computed for TM, TP, and TSS and geometric means were computed for the bacteria data.

Nineteen stations were ranked from low to high for each of the four parameters. The tributary stations ranked overall from best to most impacted are:

1. Illinois Creek
2. West Branch of Mill Creek
3. Middle Mill Creek
4. McDowell Creek
5. Deep Creek
6. Nehring Creek
7. Lower Mill Creek
8. Little Soldier Creek
9. Clarks Creek
10. Upper Vermillion Creek
11. Muddy Creek
12. Mission Creek
13. Wildcat Creek
14. Rock Creek
15. Lower Vermillion Creek
16. Cross Creek
17. Lower Soldier Creek
18. Upper Soldier Creek
19. Shunganunga Creek

In general, the streams in the western and southern areas of the Middle Kansas WRAPS have good water quality and require protection strategies, the northern and eastern areas have degraded streams needing restoration.

While the worst stations are in the eastern portions of the WRAPS, the analysis supports the choices of priority watersheds made by the WRAPS. Mill Creek is a high quality watershed that warrants protective efforts. Cross Creek is comparably one of the most heavily impacted watersheds in the WRAPS. Vermillion Creek, particularly Rock Creek, shows signs of impact as well, and have consistently elevated bacteria levels loading to the Kansas River. Both Mill Creek and Vermillion Creek are priority watersheds slated for demonstrating improvement by 2012. All but Cross Creek have had bacteria TMDLs since 1999.

The next suite of watersheds that should be the focus of the WRAPS should be those on the eastern portion of the Middle Kansas. Soldier and Shunganunga Creeks are heavily impacted as is the portion of the Kansas River running through Topeka. These new watersheds will engage Jackson and Shawnee

Counties and Topeka in water quality restoration efforts. The Shunga has TMDLs for bacteria and dissolved oxygen, indicative of nutrient and organic loading. Soldier Creek has a TMDL that implicated sediment as severely impacting the stream biology. Lake Shawnee is experiencing eutrophication. These efforts will also assist improving the quality of the Kansas River from West Topeka to the confluence with the Delaware River.

### **Adaptive Implementation (AI) of TMDLs**

1. Borne from discussions revolving around uncertainty in TMDL analysis.
2. AI promotes "learning by doing". . .experimentation, monitoring, re-assessment.
3. Monitoring of impact of initially attempted pollution controls is required; information than is fed back into implementation plan so adjustments can be made.
4. Iterative process of implementation, but always positive actions are made, no "paralysis by analysis"
5. Conventional implementation presumes there is little uncertainty in the causes, remedies and goals, the only constraint is availability of resources.. .thus, the only question to ask is "When" (will the next funds be available?).
6. Adaptive implementation recognizes resource limitations and uncertainty in the underlying analysis, thus the questions that arise go beyond "when" to include
  - a. Where (should we focus our initial efforts?)
  - b. What (should we try to reduce pollutant loadings?)
  - c. How (do we implement with which programs and practices?)
  - d. Sometimes, Why (are we doing this?). . .Questions on Water Quality Standards.
7. Three possible AI scenarios
  - a. Endpoint (WQS) is certain; TMDL analysis of causes and cures is not
  - b. Endpoint and TMDL are both fraught with uncertainty
  - c. Impairment exists, but TMDL is not proper vehicle (pollution (habitat, flow alterations, etc) vs pollutants (sediment, nutrient, pathogen loads)
8. AI is marked by continual reassessment and a persistence in placing controls on the ground until there is a notable signal of improved water quality
9. AI is readily suited for NPS, sediment and nutrient impairments, stormwater ( ag and urban runoff) and watershed management to flooding, habitat restoration and bank stabilization.
10. Examples of uncertainty
  - a. Where's the sediment in Soldier Creek coming from, fields or banks?
  - b. What width buffer strip will impart improved water quality?

- c. Where should we start, in the headwaters or along the mainstem of Vermillion Creek?
- d. How much recreation is actually occurring on Rock Creek?
- e. How effective are our controls in a two inch rain?
- f. How many more watershed structures will reduce runoff in Rossville?

### **Middle Kansas Assessment Activities**

The Pottawatomie County CD is in the process of coordinating with John Bond to compile aerial photos of the Pottawatomie County Fishing Lake and possibly Rock Creek. Additional water sampling is also planned.

The Wabaunsee County CD has visited with John Bond about conducting a public meeting(s) in Mill creek watershed regarding future assessment activities.

### **Middle Kansas WRAPS Development Final Status Report**

Rick Davis gave an overview of the final status report. Meeting stakeholders were requested to provide answers for the “Lessons Learned” question.

Lesson learned from the Development Phase, as identified by the watershed stakeholders, include:

- There is a tremendous amount of information over a large area such as the Middle Kansas.
- There is a huge amount of work to do with very limited funding.
- There isn't a lot of on the ground assessments to help pinpoint focus locations for restoration.
- There is a wide difference in water quality between tributary streams.
- There is a need for education in the watershed.
- Water quality determinations are based on both qualitative and subjective data.
- Awareness, then local consensus.
- KDHE Watershed Planning Section, Tom Stiles and staff, shared good information on relative water quality impairment and potential priority areas.
- Overall group and subgroups (Middle Kansas Watershed Stakeholder Group) combined the big picture information, including the NRCS Rapid Watershed Assessment (RWA) with their local (conservation districts, etc.) knowledge to identify issues to assess and potential demonstration projects.

- Umbrella and local groups are (needed) to push the process forward.
- One on one contacts between meetings is essential to successfully build momentum toward WRAPS Action.
- The scale of the WRAPS is too big, so the WRAPS has to focus on certain drainages to the exclusion of others – some long-term linkage is needed to keep the areas-in-waiting-engaged.
- There are many diverse water quality issues that will not be solved immediately. Cooperation will be critical to move forward.
- I have learned the proper order of development of the development stage, watershed assessment stage, and implementation stage of development of the overall WRAPS project.

### **Topeka Riverfront Development Project**

Rick Davis attended a recent meeting with the Topeka Riverfront Authority (TRA) which is coordinating the Topeka Riverfront Development Project. The project consists of economic development on both sides of the Kansas River between Topeka Blvd. and Kansas Avenue. Rick distributed Middle Kansas WRAPS brochures and discussed the project at the TRA meeting. Potential partnering possibilities were also discussed. Rick will attend future meetings to continue coordination.

### **KSU Campaign Class**

Rick Davis has contacted Dr. Nancy Muturi, KSU School of Journalism and Communications to initiate social marketing campaign for the Middle Kansas WRAPS. The project will kick-off this summer or fall.

### **Next Meeting**

Please mark your calendars for the **Thursday, February 28<sup>th</sup> Middle Kansas WRAPS Meeting** to be held at the **Kansas Department of Wildlife and Parks, 300 SW Wanamaker Rd., Topeka, KS. The Kansas Lower-Republican Basin Advisory** is meeting at the same location at **10:00 am**, so we will piggy-back on their meeting. We are planning a catered on-your-own BBQ lunch between the two meetings, and are in the process of scheduling a guest speaker(s) to present at the meeting on the **Topeka Riverfront Development Project**. We anticipate extending an invitation to Topeka Riverfront Authority members, including City of Topeka and Shawnee County officials.

Notes submitted by Mary Howell, January 17<sup>th</sup>.

