

**M E M O R A N D U M**

**DATE:** September 29, 2009  
**TO:** Kansas-Lower Republican and Missouri BAC and Agency Advisors  
**FROM:** Susan Metzger and Margaret Fast, Kansas Water Office  
**SUBJECT:** October 15, 2009 Meeting

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The next Kansas-Lower Republican and Missouri Basin Advisory Committee (BAC) meeting is scheduled for **Thursday, October 15<sup>th</sup>, 10:00am, at the Horton High School (1120 First Avenue East) in Horton, KS**. This meeting will be a joint meeting with the members of both the Kansas-Lower Republican and Missouri BACs.

This meeting will focus on activities related to a common basin priority issue: Watershed Restoration and Protection. Updates on basin WRAPs activities will be presented by Daniel Howell, KLR BAC member and Carl Johnson, MO River Basin Coordinator. The highlight will be a presentation by Jim Whisenant, Horton City Administrator, on the Mission Lake dredging project. An opportunity to tour the lake and sediment disposal area will follow the meeting.

Each committee will briefly meet separately to take care of basin specific business. The MO BAC has one applicant to consider for membership in an at-large category. Both committees will receive an update on the *Kansas Water Plan* and Kansas Water Authority activities. Included in your materials is the Reservoir Roadmap Volume II: Statutory Changes. The KWA requests comments on these recommendations concerning the sustainability of our reservoirs and the related water supply issues.

Included with this memo are the following meeting materials:

- Agenda
- Press Release
- Budget Memo
- Budget Table
- Reservoir Sustainability Initiative Memo
- Reservoir Sustainability Initiative Volume II Statutory Section
- Basin Priority Issue Status Table
- Membership Application (\*\*Missouri BAC only)

If you have any questions, please call or e-mail Susan Metzger or Margaret Fast (785-296-3185 or [susan.metzger@kwo.ks.gov](mailto:susan.metzger@kwo.ks.gov) or [margaret.fast@kwo.ks.gov](mailto:margaret.fast@kwo.ks.gov)). Please notify the office in advance if you are unable to attend.

**Joint Meeting of the  
Kansas-Lower Republican and Missouri  
Basin Advisory Committees  
10:00 a.m., October 15, 2009  
Horton High School  
1120 First Avenue East  
Horton, KS 66439**

**AGENDA**

- 1. Welcome and Introductions**
- 2. BAC Approval of Agenda**
- 3. Agency Reports \***
- 4. Public Comments \*\***
- 5. BAC Business**
  - a. Approval of July Meeting Notes
  - b. Kansas Water Authority – August 13-14 meeting
  - c. BAC member reports of activities, contacts, meetings etc.
  - d. BAC Membership
- 6. Basin Activities**
  - a. Mission Lake Design-Dredge Water Supply Restoration Project – *Jim Whisenant, City of Horton*
  - b. Missouri Watershed Restoration and Protection Strategy (WRAPS) – *Carl Johnson*
  - c. Tuttle Creek WRAPS – *Daniel Howell*
  - d. Reservoir Sustainability Initiative: Reservoir Roadmap – *Susan Metzger and Margaret Fast, KWO*
- 7. Other Business**
  - a. Messages to the Kansas Water Authority
  - b. Kansas Water Authority meeting: November 17-18 in Liberal
  - c. Next KLR & MO Meeting Dates: February/March
  - d. Water Issues Forum – Climate and Water: Planning for Change. December 9 in Wichita and December 10 in Hays
- 8. Adjourn**

**Following the conclusion of the regular business meeting, members of the BAC and those in attendance will have the opportunity to view components of the Mission Lake Dredging project.**

Note: underlined items are action items for BAC.

\*Oral Agency Reports are limited to 5 minutes, written reports are welcome.

\*\*Public Comments are limited to 2 minutes per speaker on water resource issues and concerns. Other comments should be addressed to the Director of KWO.



## **KANSAS WATER OFFICE**

**Tracy Streeter, Director**

901 S. Kansas Ave., Topeka, KS 66612-1210

Phone: 785-296-3185, Fax: 785-296-0878

Toll Free: 1-888-KAN-WATER

Web Site: [www.kwo.org](http://www.kwo.org)

### **NEWS RELEASE**

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FOR IMMEDIATE RELEASE

September 25, 2009

Kansas-Lower Republican and Missouri  
Joint Basin Advisory Committees  
10 a.m., Thursday, October 15, 2009  
Horton High School  
1120 First Avenue East  
Horton, Kansas

Members of the Basin Advisory Committees in the Kansas-Lower Republican and Missouri River basins will have a firsthand look at work underway to restore Mission Lake as a public water supply source. Their field trip will take place after a joint committee meeting of the committees scheduled for 10 a.m., Thursday, October 15, 2009 at Horton High School, 1120 First Avenue East, Horton, KS.

Restoration of Mission Lake is a pilot project jointly funded by the City of Horton and the State Water Plan Fund. The project is designed to determine the economics and effectiveness of dredging a lake to restore its water storage capacity. Removing sediment by dredging, coupled with upstream watershed soil protection measures, is expected to help the lake meet Horton's current and future water supply needs.

Work at Mission Lake is a solid example of the state's broader Reservoir Sustainability Initiative (RSI) begun in 2007 by the Kansas Water Authority. The RSI is a comprehensive set of activities to address sedimentation in reservoirs and the corresponding loss of storage. As a complement to the Initiative, a Reservoir Roadmap is being developed at the request of the Kansas House of Representatives Vision 2020 Committee. Included in the Roadmap are potential statutory changes that would help sustain the reservoirs and insure adequate future water supply. Members of the two BAC committees will consider the Roadmap's suggested statutory and budgetary needs. Volumes I and II of the Reservoir Roadmap are available on the Kansas Water Office's webpage at <http://www.kwo.org/ReservoirRoadmap.htm>.

The meeting will also include presentations on Watershed Restoration and Protection Strategies by representatives of the Missouri and the Tuttle Creek WRAPS groups. WRAPS membership includes stakeholders committed to making a difference in all aspects of watersheds. Special emphasis is placed on watersheds above public water supply sources.

The Kansas-Lower Republican and Missouri committees and other BACs in the state will co-host the Climate and Water forums to be held December 9, 2009 in Wichita and December 10, 2009 in Hays. The meetings are designed to increase awareness of the possible effects of a changing climate on water resources and the state's economy. Co-hosts are the Kansas Water Office and the Kansas Center for Agricultural Resources and the Environment (KCARE). The public is encouraged to participate.

For additional information about the October 15, 2009 meeting or an electronic registration form for the Climate and Water Forum, please go to the Kansas Water Office web site [www.kwo.org](http://www.kwo.org).

**Note to media:** The Kansas Water Office coordinates the Kansas water planning process in concert with the Kansas Water Authority. The Authority's 24 members include representatives from diverse water use interest groups and leaders of the state's natural resource agencies.

Advice on policy development comes from Basin Advisory Committees in each of the state's 12 river basins and other local stakeholders. The Authority, in turn, advises the Governor and Legislature on water issues to be considered for policy enactment.

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The Kansas Water Office is the water planning, policy, and coordination agency for the State of Kansas. It prepares a state plan of water resources development, management and conservation, reviews all water laws, and makes recommendations to the Governor and Legislature for new or amendatory legislation. The Office administers the *Kansas Water Plan Storage Act*, the *Kansas Weather Modification Act*, and the *Water Assurance Act*. It also reviews the plans of any state or local agency for the management of the water and related land resources of the state.

Water planning in Kansas is an open process.

**Note to Editor:** The Americans with Disabilities Act, (42 U.S.C. 12101), requires the Kansas Water Office to print the reasonable accommodations message.

If accommodations are needed for persons with disabilities, please notify the Kansas Water Office at 901 S. Kansas Avenue, Topeka, KS 66612-1249 or call (785) 296-3185 at least two days prior to the meeting.

**M E M O R A N D U M**

**DATE:** September 15, 2009  
**TO:** Basin Advisory Committees  
**FROM:** Tracy Streeeter, Director  
**SUBJECT:** FY 2011 State Water Plan Fund Budget Recommendations

Attached are the FY2011 State Water Plan Fund (SWPF) recommendations adopted by the Kansas Water Authority at their August Meeting in Salina. These recommendations were initially reviewed and adopted by the KWA Budget Committee during meetings held prior to the KWA Meeting. Don Paxson serves as Chair of the Committee along with Lisa French, David Corliss, Gary Baker and Steve Irsik.

The KWA recommendations propose the expenditure of \$19,605,820 for FY2011. This total includes the full demand transfer from the State General Fund (SGF) and is based upon fee projections which are 3.7 percent less than last year's projections, mostly due to declining water use fees paid by public water suppliers. Overall, the amount of projected available funds for FY2011 (assuming the full \$6 million SGF transfer) is \$1.16 million less than was projected for FY2010. As a result, the recommendation for most SWPF programs is less than last year's recommendation.

In addition to normal SWPF expenditures, the KWA also recommended, as it did a year ago, ten percent of the Expanded Lottery Act Revenues Fund (ELARF) be dedicated to debt reduction and infrastructure projects. Revenue projections for FY2011 ELARF are not available at this time. However, the KWA is requesting \$5.4 million in ELARF funding for FY2011 to begin the purchase of storage at Perry and Milford Reservoirs, partial funding to implement a potential minimum pool agreement at Webster Reservoir, streambank restoration projects above federal reservoirs and funding for dam safety and rehabilitation projects.

Please note on the attached table a column entitled *FY 2010 Revised*. This column illustrates changes that have occurred since the adjournment of the 2009 Legislature. As a result of continuing decreases in State General Fund revenue, the Governor found it necessary in early July to reduce the FY 2010 budget approved by the Legislature. As a result, the \$3.295 million SGF transfer to the SWPF will not be made this year. The majority of the impact of this action can be seen in the budget line items of the State Conservation Commission and Kansas Water Office.

On a final note, the KWA Budget Committee has begun a process to identify potential new funding strategies for State Water Plan projects. In early August, the Committee convened a group of stakeholder groups to discuss future funding options. Staff are reviewing funding sources used by other states for water and natural resources and will be sharing this information with the Budget Committee and stakeholders at a meeting scheduled for October 14. This group will continue to meet through 2010. It is not anticipated that any proposals will be available for consideration by the 2010 Legislature.

Attachment

**SWPF: FY 2009-2011**

Agency/Program	FY2009 SWPF		FY2010		FY2011 SWPF Base	FY2011 ELARF
	Legislative Recs.	FY2010 KWA Recommend	Legislative Approved	FY2010 Revised		
<b>Department of Health and Environment</b>						
Contamination Remediation 1802	840,575	804,385	570,737	567,216	753,870	-
TMDL Initiatives 1805	238,316	301,988	214,055	210,780	238,316	-
Local Environmental Protection Program 1806	1,502,848	1,502,735	1,066,942	1,066,942	1,400,000	-
Nonpoint Source Program 1804	307,642	299,856	299,029	291,241	299,856	-
WRAPs 1808	600,613	800,000	481,042	481,042	783,852	-
Use Attainability Analysis 1807		--				-
Soil Treatment Study 1809		--				-
Total--KDHE	3,489,994	3,708,964	2,631,805	2,617,221	3,475,894	-
<b>University of Kansas--Geological Survey</b>						
	32,000	40,000	28800	28800	37,486	-
<b>Department of Agriculture</b>						
Interstate Water Issues 0070	527,908	475,181	343,370	337,379	459,816	-
Water Use 0075	48,000	70,000	49,700	49,700	66,000	-
Basin Management 0080	713,506	761,319	755,321	737,536	252,977	-
Enhanced Water Management					445,607	-
Dam Safety and Rehabilitation						1,000,000
Total--Department of Agriculture	1,289,414	1,306,500	1,148,391	1,124,615	1,224,400	1,000,000
<b>State Conservation Commission</b>						
Water Resources Cost Share 1200 + 1205	3,570,250	3,265,972	2,943,551	2,351,510	3,060,216	-
Nonpoint Source Pollution Asst. 1210	3,134,168	3,473,754	3,126,379	2,501,102	3,254,907	-
Aid to Conservation Districts 1220	2,264,831	2,255,919	2,255,919	2,255,919	2,113,796	-
Watershed Dam Construction 1240 + 1245	938,493	1,055,000	949,500	759,600	988,535	-
Water Quality Buffer Initiative 1250+1255	363,210	300,000	270,000	216,000	281,100	-
Riparian and Wetland Program 1260	242,598	251,782	226,604	181,283	235,920	-
Multipurpose Small Lakes 1265	1,123,176	--	--	--	-	-
Salt Cedar Demonstration Projects 1280	--	--	--	--	-	-
Lake Restoration/Management 1275	998,466	998,466	898,619	718,896	937,569	-
Water Transition Assistance 1215	2,221,274	916,273	826,333	81,010	858,548	-
Conservation Reserve Enhance. Pgm. 1225	1,229,707	--	--	--		-
Streambank Stabilization						1,000,000
Total--Conservation Commission	16,086,173	12,517,166	11,496,905	9,065,320	11,730,591	1,000,000
<b>Kansas Water Office</b>						
Assessment and Evaluation 1110	720,143	750,000	675,000	532,500	700,000	-
GIS Data Base Development 1140	250,000	250,000	225,000	177,500	250,000	-
MOU - Operations and Maintenance 1150	301,418	305,000	274,500	216,550	355,000	-
Technical Assistance to Water Users 1200	632,918	624,919	562,427	443,692	624,919	-
Weather Stations 1235	80,000	80,000	72,000	57,198	70,000	-
Water Resource Education 1220	97,200	77,907	70,116	54,916	55,000	-
Weather Modification 1230	240,000	220,000	198,000	156,200	240,000	-
Wichita Aquifer Recharge Project 1245	1,000,000	700,000	630,000	300,000	805,044	-
Neosho River Basin Issues 1240	960,000	300,000	270,000	213,000	-	-
Reservoir Storage Purchase						3,220,357
Total--Kansas Water Office	4,281,679	3,307,826	2,977,043	2,151,556	3,099,963	3,220,357
<b>Department of Wildlife and Parks</b>						
Almena Irrigation District 1802		--				-
Minimum Pool Agreement for Webster		--				250,000
Stream (Biological) Monitoring 1801	32,000	40,000	28,800	28,800	37,486	-
Total--Department of Wildlife and Parks	32,000	40,000	28,800	28,800	37,486	250,000
<b>Total Water Plan Expenditures</b>	<b>25,211,260</b>	<b>20,920,456</b>	<b>18,311,744</b>	<b>15,016,312</b>	<b>19,605,820</b>	<b>5,470,357</b>

<b>State Water Plan Resource Estimate</b>	<b>FY 2009 SWP</b>		<b>FY 2010</b>			<b>FY2011</b>
	<b>Legislative</b>	<b>FY 2010 KWA</b>	<b>Legislative</b>	<b>FY 2010</b>	<b>FY2011 Base</b>	<b>ELARF</b>
	<b>Recs.</b>	<b>Recommend</b>	<b>Approved</b>	<b>Revised</b>		
Beginning Balance	2,846,479	(153,638)	(153,638)	(153,638)	(137,485)	--
Adjustments	--	--			--	--
Released Encumbrances	1,087,010	421,700	421,709	421,709	--	--
Transfer to KCC	(320,000)	(400,000)	(288,000)	(288,000)	(374,865)	--
Revenues						
Expanded Lottery Act Revenue Fund						5,470,357
State General Fund Transfer	2,000,000	6,000,000	3,295,432	--	6,000,000	--
Economic Development Fund Transfer	2,846,126	2,000,000	2,000,000	2,000,000	2,000,000	--
Municipal Water Fees	3,748,687	3,785,991	3,785,991	3,785,991	3,270,343	--
Industrial Water Fees	1,272,024	1,079,103	1,079,103	1,079,103	1,129,729	--
Stock Water Fees	368,708	404,176	404,176	404,176	372,594	--
Pesticide Registration Fees	1,000,000	965,000	965,000	965,000	941,000	--
Fertilizer Registration Fees	2,940,000	2,940,000	2,940,000	2,940,000	3,220,000	--
Pollution Fines and Penalties	80,000	85,000	85,000	85,000	210,000	--
Clean Drinking Water Fee Fund	6,480,609	3,469,486	3,469,486	3,469,486	2,804,473	--
Sand Royalty Receipts	182,250	170,000	170,000	170,000	170,031	--
KS v. CO Damage Award -2005	525,729	--	--	--	--	--
KS v. CO Damage Award -2006	--	--	--	--	--	--
FY 2009 Pay Plan Savings	--	--	--	--	--	--
Total Receipts	21,444,133	20,898,756	18,194,188	14,898,756	20,118,170	5,470,357
Total Available	25,057,622	20,766,818	18,174,259	14,878,827	19,605,820	5,470,357
Less Expenditures	25,211,260	20,920,456	18,311,744	15,016,312	19,605,820	5,470,357
Ending Balance	(153,638)	(153,638)	(137,485)	(137,485)	--	--

**M E M O R A N D U M**

**DATE:** September 11, 2009  
**TO:** Basin Advisory Committee members and advisors  
**FROM:** Susan Metzger, Deb Baker, Diane Coe, Hank Ernst, Margaret Fast, Bobbi Wendt  
**SUBJECT:** Reservoir Sustainability Initiative / Reservoir Roadmap

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During the 2009 Legislative session, the Kansas House Vision 2020 Committee discussed the issue of reservoir sustainability and sedimentation. One of the items they requested was that by January 2010 the Kansas Water Authority deliver to the Kansas Legislature a report on actions necessary to insure an adequate future water supply for areas currently or potentially served by federal, state or municipal reservoirs. Several agencies have been active in developing this report, known as the Reservoir Roadmap. Aspects of the report have been reviewed by the Kansas Water Authority at their April, June and August meetings.

The Reservoir Roadmap report is organized into three volumes:

1. Quantification of the Issue – Statewide Perspective
2. Statutory and Budget Considerations
3. Basin Approach to Reservoir Sustainability

The draft contents of Volumes I and II are available on the Kansas Water Office webpage at <http://www.kwo.org/ReservoirRoadmap.htm>. Included in your mailing materials for discussion at the Basin Advisory Committee meeting is a chapter of Volume II which includes the recommended statutory changes to assure reservoir sustainability.

The changes are presented as components of a comprehensive Kansas Reservoir Sustainability Act. The goal of this act would be to provide authority to the state of Kansas to secure, protect and restore reservoir storage to meet the needs of the citizens of Kansas. These components could also be considered “a la carte”, requiring changes to several existing and new statutes and regulations. While this approach could be considered, it would be labor intensive, requiring significant staff and legislative time, and may not completely address all aspects of needed change.

A presentation will be made to the BAC during your meeting by a staff member of the Kansas Water Office. The presentation will provide an overview of the full Reservoir Roadmap and details of the components of the recommended statutory changes. Your input and feedback on these recommended changes will be important in the development of potentially significant legislation.

Volume III is currently being developed and will be presented to the KWA in November 2009. The Neosho basin has been selected as a pilot basin for Volume III. This Volume will also contain a schedule for similar analyses of the remaining basins.

The entire report will be presented to the Legislature during the 2010 session, after review of the final document by the KWA.

## **VOLUME II: RESERVOIR ROADMAP RECOMMENDED STATUTORY CHANGES**

A review of state and national water resource policy was conducted as part of the Reservoir Sustainability Initiative. Several policies were focused on in the development of the Reservoir Roadmap. Following is a discussion of the statutory issues requiring resolution if the state of Kansas is to secure, protect, and restore the state's reservoirs to meet the needs of the citizens in the 21<sup>st</sup> century.

Addressing necessary statutory changes could be accomplished in a piecemeal fashion in which individual statutes or regulations are reviewed and modified. However, this process will be labor intensive, require significant staff and legislative time, and may not completely address all aspects of needed change. Therefore, the recommendation is to create a comprehensive Kansas Reservoir Sustainability Act (RSA) with the following goal:

*The State of Kansas will have the authority to secure, protect and restore reservoir storage needed to meet the water supply needs of the citizens of Kansas.*

Many of the individual recommendations in the Protect and Restore categories were previously considered and approved in the *Enhanced Stream Corridor and Wetland Management to Address Sedimentation* policy section, the *Flood Damage Mitigation and Small Dam Safety* policy section and *Institutional Framework* management section of the *Kansas Water Plan*. Implementation of these recommendations would be included within the Kansas Reservoir Sustainability Act.

Establishment of a comprehensive Kansas Reservoir Sustainability Act (RSA) involves each of the natural resource agencies. With assistance from these agencies, the Kansas Water Authority would maintain the overall responsibility of identifying reservoir sustainability needs through the public process of the *Kansas Water Plan*. Specific projects and activities resulting from the RSA would be identified in the *Kansas Water Plan*, Water Issue Strategic Plans, the Water Marketing/Assurance Programs Capital Development and Storage Maintenance Plan and the Water Resources Capital Development Plan, as appropriate.

### **SECURE**

#### ***Debt Service on Storage in Federal Reservoirs***

Kansas has contracts with the U.S. Army Corps of Engineers (Corps) for purchase of almost a million acre-feet of storage in 13 reservoirs; just over half of that storage is currently under a repayment agreement. The state makes annual principal and interest payments on that in-service storage. In addition, operation and maintenance costs for the in-service storage are paid annually. Currently, the customers of the Water Marketing program pay those costs. The ability to cover the increasing costs for principal and interest and operation and maintenance is limited because the majority of revenue in the Water Marketing program comes from fixed rate contracts. The rate for customers of the Marketing Program that have contracts signed since 1983 changes annually but represents only 20% of the revenue stream.

Efforts to provide additional funds to service this debt and to secure additional storage have been proposed and discussions are underway to determine the best method for doing this. The potential for the federal government to relieve part of the debt is part of the discussion and the state may need statutory authority to partner with the federal government if debt relief agreements can be negotiated.

#### ***Unfunded Liability***

The storage under contract, but not yet in-service and committed to a customer, represents an unfunded liability in the program. The 2008 Legislature recognized this issue, and the concern that until a repayment agreement is in place, the state does not control use of that storage for the benefit of its citizens. In response, the Legislature created the Reservoir Storage Beneficial Use Fund to be used to buy additional

storage before the state has a customer to repay the cost to purchase, operate and maintain the storage. While this is a significant step toward securing storage, the appropriation is insufficient. While no statutory change is needed, there is a significant funding impact.

In addition, state statute requires a commitment on the part of a user to bring the water into service and begin paying for it before the state enters into repayment agreements to the federal government. To secure additional storage in existing reservoirs for future use, this requirement may need to be removed. (See Volume II, Chapter 2 – Funding Needs.)

### ***Purchase of Additional Storage in Federal Reservoirs***

There are a few situations in which additional storage could be obtained in existing federal reservoirs. Melvern, Wilson and Kanopolis, while all very different situations, each present an opportunity for providing additional storage. As mentioned above, to secure additional storage in existing reservoirs for future use, the requirement for the water to be in-service may need to be removed.

### ***Expansion of Access to Storage***

Though state planning statutes recognize multiple and broad public benefits of reservoirs, the right to use water supply that is stored in Corps reservoirs is currently limited to contracts under the Water Marketing Program, membership in a water assurance district, and in a very few instances, contracts directly with the federal government. In all cases, use of the water is designated either by statute or by contract, for municipal and industrial users only. There are times when a more flexible operation of the river/reservoir system could meet additional needs; however, legal access to storage released is limited. Approaches that will work with current and local conditions to allow the use of storage to meet contemporary needs, yet respecting current commitments under contract, ownership, and appropriation rights are needed.

### ***Development of New Large Reservoirs***

From the 1940's through the 1970's the federal government developed large reservoirs in the state of Kansas, constructed primarily for flood control purposes. Other purposes such as water supply, water quality, irrigation, recreation and fish and wildlife habitat were included based on the projected need, and in some cases, local interest.

The state recognized the value of these reservoirs as a public water supply resource and purchased available storage from the federal government. Likewise a number of cities purchased storage in federal reservoirs, notably Wichita and El Dorado. The water was then made available to municipal and industrial users under the Water Marketing and Water Assurance Programs. Two-thirds of the population of Kansas is now directly or indirectly dependent on storage in these reservoirs. As population grows and existing reservoirs fill with sediments, new surface water storage facilities may need to be developed (see Volume I, *Supply and Demand Projections* chapter).

Future water supply storage may also be achieved by off stream storage in some basins. Offstream refers to a [water body](#) or system that is not located in a [streambed](#) or does not receive significant natural flows from the surrounding [watershed](#). An example is a [reservoir](#) that is not located on a streambed, and is supplied by a [pipeline](#), [aqueduct](#) or an adjacent stream. Aquifer storage and recharge using excess river flows is also considered to be offstream storage.

The federal government has no plans or authority to develop additional water supply storage in Kansas. Therefore, it is recommended under the Kansas RSA to establish authority for the state to initiate the development of water supply reservoirs and other means of storage.

## ***Secure Reservoir Sites for Future Development***

During the time that the federal government was actively developing reservoirs, the Corps and the Bureau of Reclamation (Bureau) selected the most feasible reservoir sites from a cost benefit evaluation. A number of sites were identified, analyzed and eliminated from consideration on this basis. Reservoir sites not initially developed by the Corps are in some cases in close proximity to growing urban areas, enhancing their benefit. Such sites may be threatened by development of suburban growth, potentially precluding their development to meet future water supply needs.

In order to ensure the ability to provide adequate water supply for the future, the state should have the authority to protect reservoir and other storage sites for future water supply from development or other restrictive activities. The RSA should contain authority for the state to identify sites in the best locations for future water storage. A means should be developed to ensure that planned uses of the site do not preclude its suitability for future water storage,

### ***Development of Small Reservoirs***

In some areas, additional surface water storage may be needed for water supply. In addition, the value of a lake for local recreational purposes and the associated economic value to the region are recognized. Though the state can participate in public water supply and recreation storage under existing state law, flood control storage must be included as one of the purposes. Since enactment of this statute, the need for water supply reservoirs has emerged in locations where flood control was not a primary issue. This provision has prevented state participation in development of single purpose water supply reservoirs. Under a comprehensive Kansas RSA, authority could be provided to the State of Kansas to cooperate with local units of government or private entities for the development of small lakes for any purpose, whether single or multipurpose. Requirements that flood control be included should be removed.

### ***Minimum Pool Agreements for Recreation***

A stable reservoir water pool supports recreational uses for access to boat ramps and fisheries habitat, and increases support to the local economy. The State Water Plan Storage Act recognizes the value of recreation, therefore, no state statutory changes are recommended. However, greater coordination and evaluation efforts are needed to identify reservoirs that could provide greater opportunities for recreation. For example, discussions are underway to determine if irrigation storage can be leased to provide additional recreational benefits at Webster Reservoir. Changes to federal authority for the Bureau of Reclamation may be needed so that they may more freely participate in planning and evaluation of potential minimum pool agreements.

## **PROTECT**

### ***Protect Kansas Reservoirs through the Implementation of Best Management Practices (BMPs)***

Water resources within Kansas are vital to the state for not only supplying a growing population but for the economic welfare of the state. The state has a vested interest in protecting the storage in the federal reservoirs in which two-thirds of the population depends on for its water supply. Land surface BMPs in target areas above reservoirs can help to reduce sediment loads. These practices can take the form of terraces, waterways, residue management, grade control structures, dams and other practices that reduce or eliminate sediment and nutrient loading to the reservoirs. There are well established cost share mechanisms for these traditional conservation practices. While no statutory change is needed, the recognition of the vital role these practices play is a component of a comprehensive reservoir sustainability initiative.

## ***Riparian and Wetland Protection and Development***

The protection of riparian and wetland areas, when systematically implemented and targeted above water supply reservoirs, may significantly reduce future sediment loads, extending storage capacity. The state currently provides cost-share assistance on wetland and riparian establishment and restoration. When matched with other state and federal programs, the total cost-share allowable to a participant is not to exceed 80% of the total cost of the practice, and in some cases cost share may be 90% of the total cost. In areas above federal reservoirs, the state's interest in the conservation practice may exceed the interest of the individual landowner, who may choose not to participate in the voluntary practice if financial input on his/her part is required. In those instances, the cost for project planning and implementation should be entirely the responsibility of the state. The RSA should give authority for the state to provide 100% funding for conservation project planning and implementation, when substantial state interest is demonstrated.

Protection of high value conservation resources often involves the purchase of a conservation easement. While the state does have the authority to accept donated easements, there is not a dedicated source of funding that could be drawn from to purchase targeted high value easements. The ability should be developed in the RSA to establish a dedicated conservation easement fund.

### ***Protect Streambanks through Stabilization Projects on a Stream Segment Approach***

Increasing evidence exists that streambank erosion contributes to significant sedimentation in reservoirs. An approach that targets entire reaches for stabilization, instead of individual scattered sites, is more effective. State statute currently requires that federal funding be available before the state participates in a streambank stabilization project when a systematic approach is utilized. State statute emphasizes local responsibility for a streambank stabilization project. While coordination with local landowners and community members is essential to a successful project, requirement for local sponsorship and cost-sharing can be a significant limiting factor due to the high cost of stream stabilization projects. The recommended statutory approach is to allow for 100% state responsibility in the coordination, planning and implementation of systematic stream stabilization projects in targeted areas. In addition, the statutory requirement for federal funding should be removed.

In May 2009, the Kansas Water Office received funding through the American Reinvestment and Recovery Act to conduct a streambank stabilization and riparian restoration project on an eight-mile reach of the Neosho River above John Redmond Reservoir. Implementation of this project will serve as a pilot, illustrating the type of local coordination and funding needs required for this systematic approach.

## **RESTORE**

### ***Restoration of Water Supply Storage Capacity through Dredging of Municipal, State and Federal Reservoirs***

In many reservoirs, especially those in which significant BMPs and streambank stabilization efforts have already been implemented in the contributing watershed, dredging may be a viable alternative for restoring water supply storage capacity. Through successful pilot projects such as at Mission Lake, the state is gaining the knowledge and expertise to facilitate similar projects at other reservoirs. Based on the experience of planning and implementing a pilot dredging project at Mission Lake, a successful dredging project requires coordination with many entities. These agencies include, but are not limited to, the State Conservation Commission, Kansas Water Office, Kansas Department of Health and Environment, Kansas Department of Wildlife and Parks, Kansas Department of Agriculture, Kansas Department of Transportation, the Corps and Bureau, local municipalities, legislators, and local citizens. Coordination among these entities is necessary to provide for complete collaboration and to expedite permitting and review processes. The RSA should provide for clear and comprehensive state authority for coordination of all aspects of a systematic dredging program for the purposes of water supply storage capacity restoration.

## ***Dam Safety and Rehabilitation***

Nearly 6,000 small dams in Kansas are regulated by the Kansas Department of Agriculture, Division of Water Resources. Of these, 180 are classified as high hazard with an additional 247 classified as significant hazard. Most dams were constructed with a 50-year design life and the average age of these dams is 40 years. These dams have been constructed to provide flood control, public water supply, recreation and other benefits. Many were built by local watershed districts using federal or state cost-share assistance and local funds. Others have been constructed by municipalities, private organizations or individuals, and the state.

In November 2005, the Kansas Water Authority adopted a *Kansas Water Plan* policy section for small dam safety and rehabilitation. Recommendations were made for development of breach inundation maps and notification of downstream landowners. Inundation maps for new dams should be filed with the county registrar of deeds. Local downstream landowners should be notified by the registrar and information about the potential flooding if a breach occurs should be attached to the deed.

Where development downstream of an existing dam owned by a public entity such as a municipality or a watershed district results in a hazard class increase, notice should be given to property owners within the breach inundation area of the dam and the levying of a special assessment against these property owners for the purpose of making necessary modifications to the dam consistent with the design standards of the new hazard class should be authorized. The owner of a dam should not be held liable for damages caused by breach of the dam to real property developed after the landowner had been made aware of the location of possible flooding. This limitation should not affect liability for personal injury or death caused by breach of a dam.

Additional watershed and other dams require rehabilitation due to deferred maintenance, age or extreme floods or other natural phenomena. The cost for rehabilitation of existing dams is substantial. A cost benefit analysis for rehabilitation of these dams should be performed to determine if decommissioning of the dam is more cost effective than repair. When dam repair is the better option, and the dam owner can effectively demonstrate that the needed repairs are not due to negligence, state cost share could be provided to ensure the safety of the dam.

The state should establish a cost-share program to assist eligible dam owners in paying for needed dam rehabilitation and upgrade measures.

## **CONCLUSION**

The Kansas Reservoir Sustainability Act would provide a comprehensive approach to secure, protect, and restore the state's water resources to meet the needs of the citizens. Equally important to the recommended statutory changes is funding. A discussion of the recommended financial resources to meet anticipated needs is provided in the following chapter.

Basin	Priority Issue	Issue Description/Update	Action Status*
Kansas Lower Republican	<b>Kansas River Degradation</b>	<p>Bed degradation threatens water intakes, bridges and other manmade “hard points”, aquatic habitats and impacts farm land and riparian habitats.</p> <p><b>June 2009 Update:</b> Installation of monuments and cross section surveys will be completed by LandPlan in summer 2009. Through a Public Assistance to States (PAS) agreement between KWO and the Corps, an analysis will be conducted on the cross section surveys to determine state-discharge relationships, flow and discharge duration, and cross section changes. New publication completed by Dr. Wakefield Dort: <u>Historical Cross Section Changes of the Kansas River and Its Major Tributaries</u>. The Kansas-Lower Republican BAC has formed a subcommittee to develop an action plan to address degradation on the Kansas River.</p> <p><b>August 2009 Update:</b> Through the PAS agreement, the Corps is making progress on the project including completion of the flow volume analysis at the main stem gages, as well as, the stage-discharge relationships analysis.</p>	B
	<b>Watershed Restoration and Protection</b>	<p>Watershed Restoration and Protection efforts are needed to address a variety of water quality and water resource concerns such as achieving Total Maximum Daily Loads, Nutrient Reduction goals, development of Source Water Protection Plans, reduction of sedimentation in reservoirs and lakes, and protection or restoration of wetland and riparian habitats. Approved August 2006.</p> <p><b>June 2009 Update:</b> WRAPS funding applications have been evaluated by KDHE and WRAPS workgroup. Recommendations will be provided to Natural Resources Subcabinet on May 21<sup>st</sup>. Several WRAPS Stakeholder Leadership Teams will receive funding for implementation activities this year, including Delaware and Tuttle Creek. An interagency team is working to update the Nonpoint Source Management Plan. The Design-Dredge project for Mission Lake is scheduled for construction in July 2009. Research is underway through the Sediment Baseline work plan to evaluate baseline watershed conditions in the watersheds above Centralia, Banner, and Atchison Lake. River geomorphology will be assessed by Gulf South and The Watershed Institute on the Delaware and Blue Rivers.</p> <p><b>August 2009 Update:</b> The KLR and MO BACs are planning a joint meeting in Horton on October 15<sup>th</sup> to view the Mission Lake dredging project. Pipe is being fused, engineering plans are being finalized, and required permits are nearing issuance for this project. Gulf South and TWI are nearing completion of the geomorphological analysis of rivers in the Delaware watershed. The Glacial Hills RC&amp;D will receive ARRA funds for streambank stabilization on the Delaware River.</p>	A
KLR	<b>Water Supply Management &amp; Conservation</b>	<p>Increasing population and development and aging reservoirs and public water supply infrastructure, requires evaluation of the river/reservoir system capacity to meet future water supply needs in the basin.</p> <p><b>June 2009 Update:</b> KWO is working with Black &amp; Veatch to update the Kansas OASIS model to determine the amount of storage the Kansas River Assurance District will purchase to ensure adequate water supply for their members into the future.</p> <p><b>August 2009 Update:</b> No additional update to provide.</p>	B