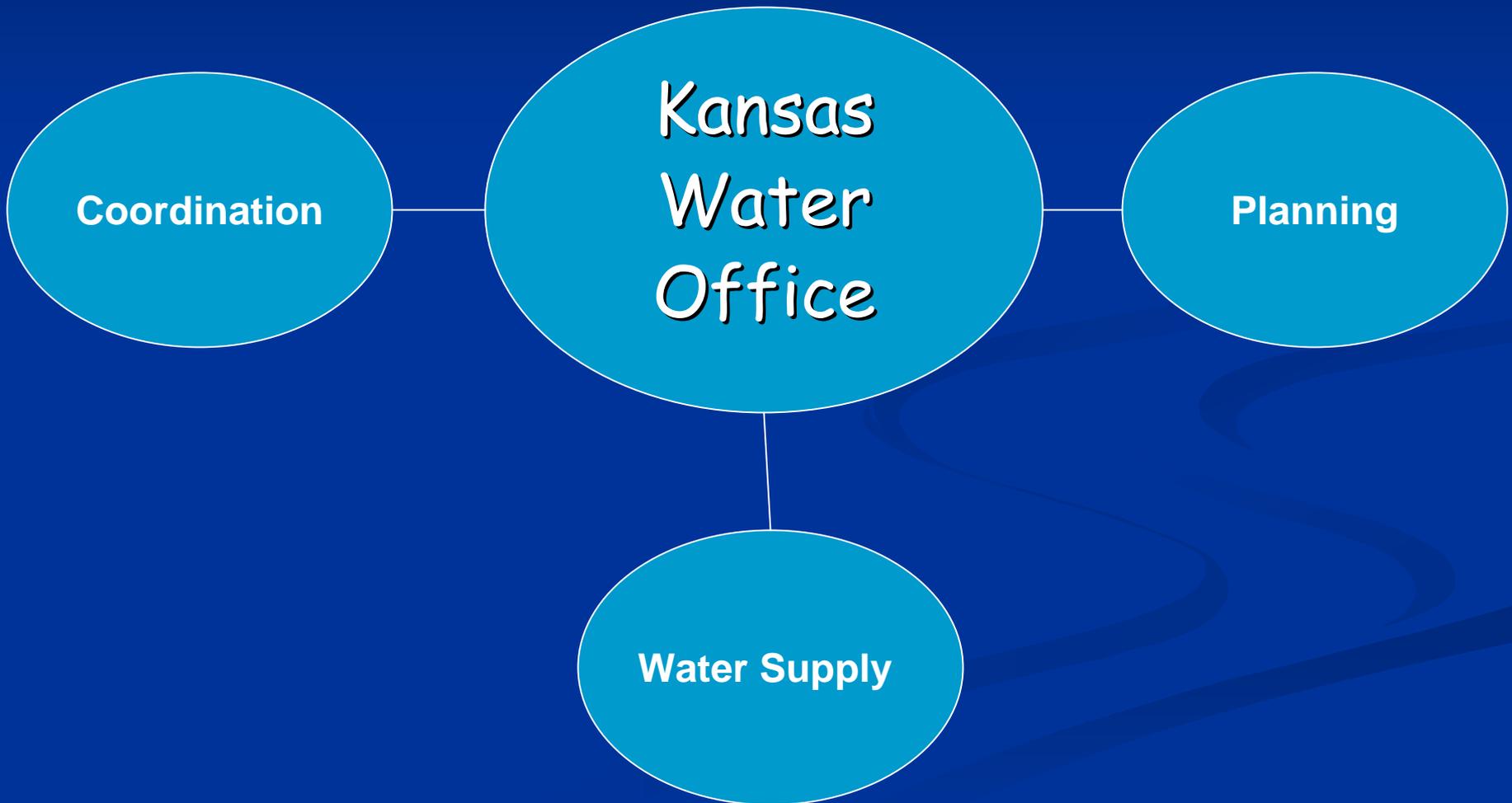
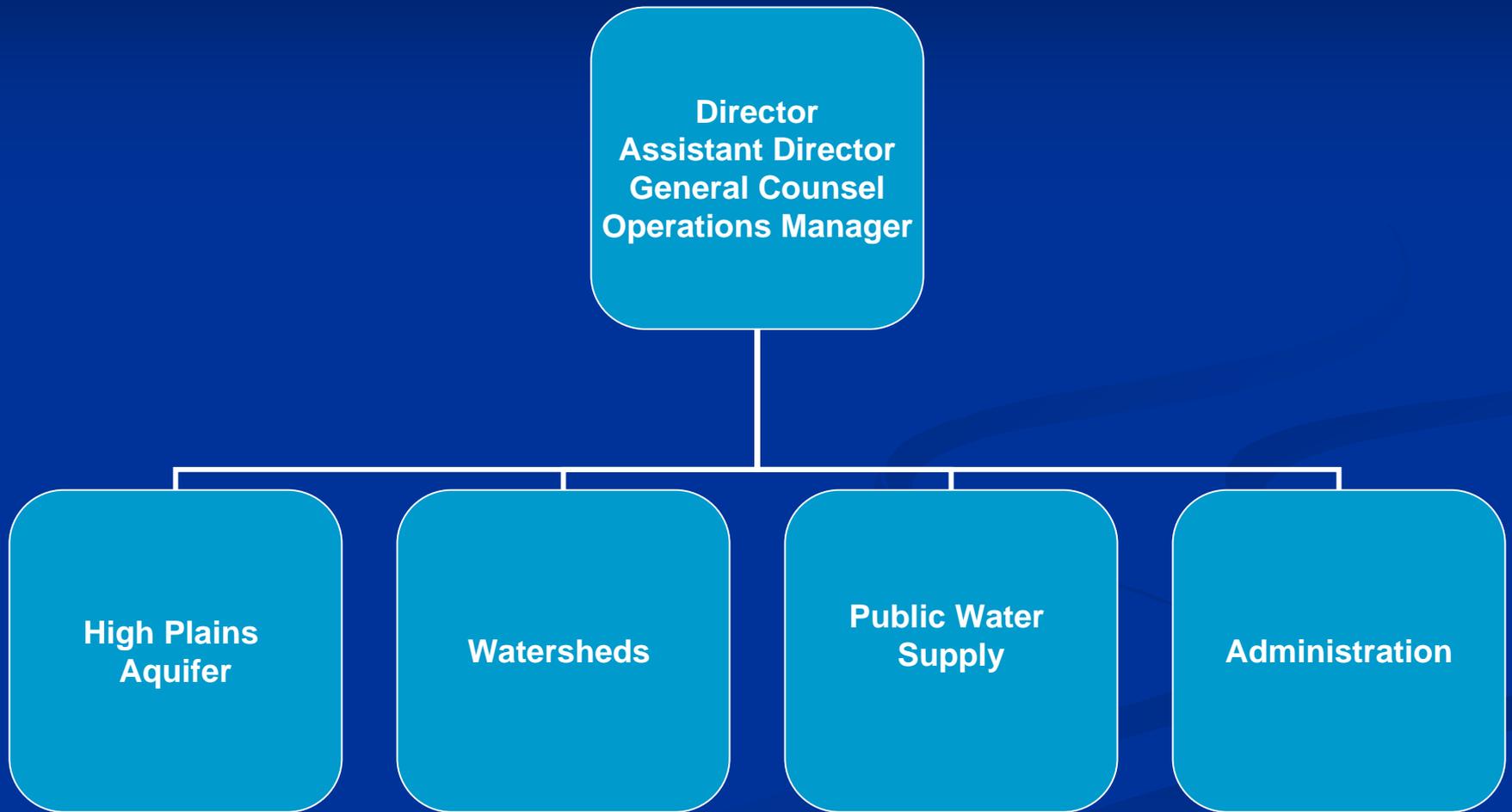


Kansas Water Planning Process

Who We Are & What We Do



Organizational Structure



State Water Planning

- Kansas Water Plan
 - Kansas Water Authority
 - 25 member body
 - Appointed and ex-officio (state agencies) members
 - Makes recommendations to the Governor and legislature
 - Basin Advisory Committees
 - 11 member volunteer committees
 - Advise the KWA on basin issues
- Wetlands Planning & Coordination

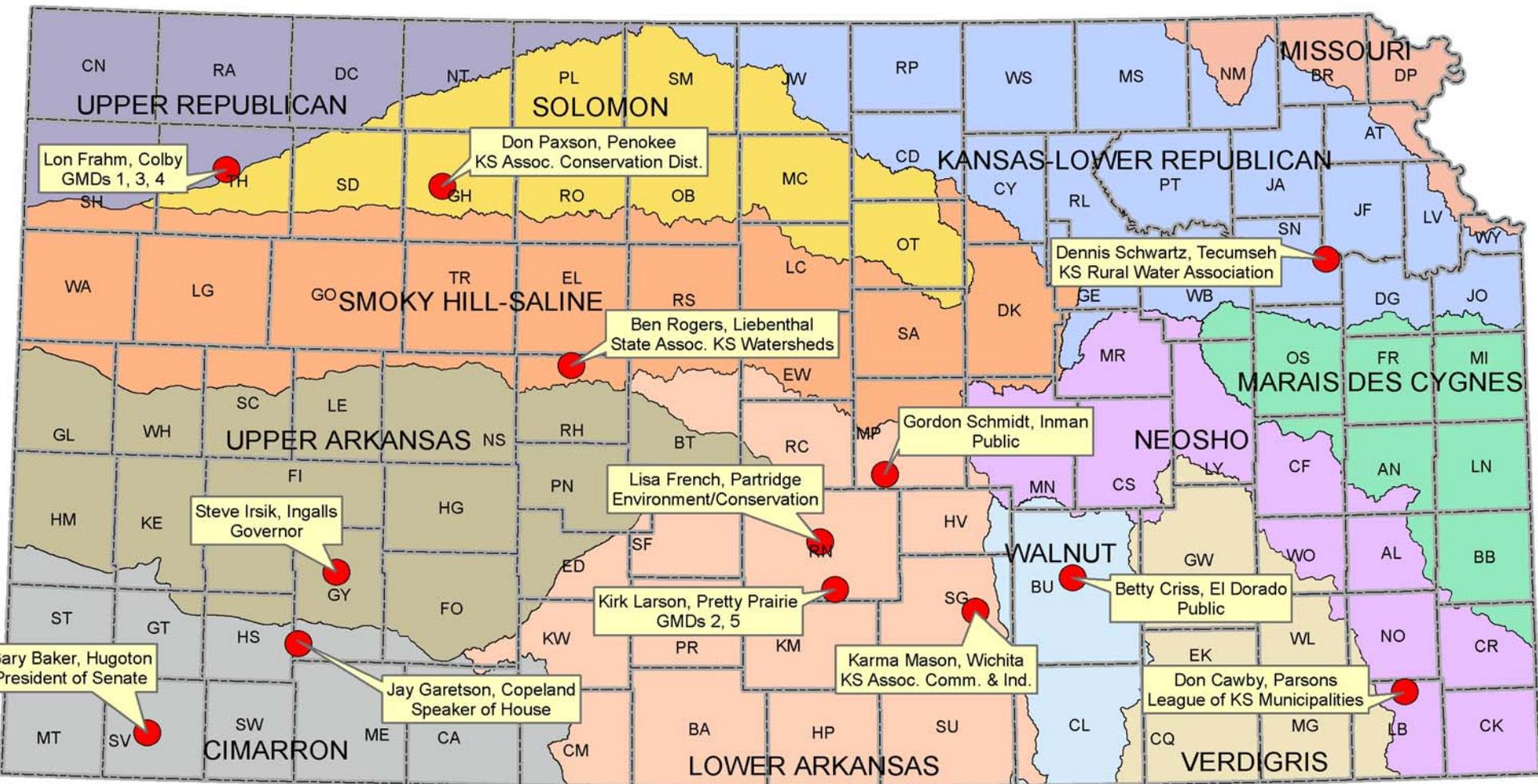
Kansas Water Plan

- Policy Sections
 - Addresses issues of statewide concern
 - New or amendatory legislation
 - Major program development or modification
- Basin Sections
 - Focus on basin specific issues
 - Application of existing programs
- State Water Planning Process
- Electronic
- Updated at least every 5 years
- State Water Plan Fund

State Water Plan Fund

- \$17-20 million annually
- Revenue
 - State General Fund
 - EDIF (Lottery) Fund
 - Fees & Fines
 - Clean Drinking Water Fees in '08
 - \$3.2 M annually
 - Dedicated to Lake Restoration & Protection
 - PWS Technical Assistance

Kansas Water Authority Members



Kansas Water Office
June 2007

Kansas Water Authority Ex Officio Members

Fred Cholick
Ag Experiment Station
Kansas State University

Greg Foley
State Conservation Commission

Mike Hayden
KS Dept. of Wildlife & Parks

Ron Hammerschmidt
KS Dept. of Health & Environment

William Harrison
KS Geological Survey

David Kerr
KS Dept. of Commerce

Edward Martinko
KS Biological Survey

Tom Wright
KS Corporation Commission

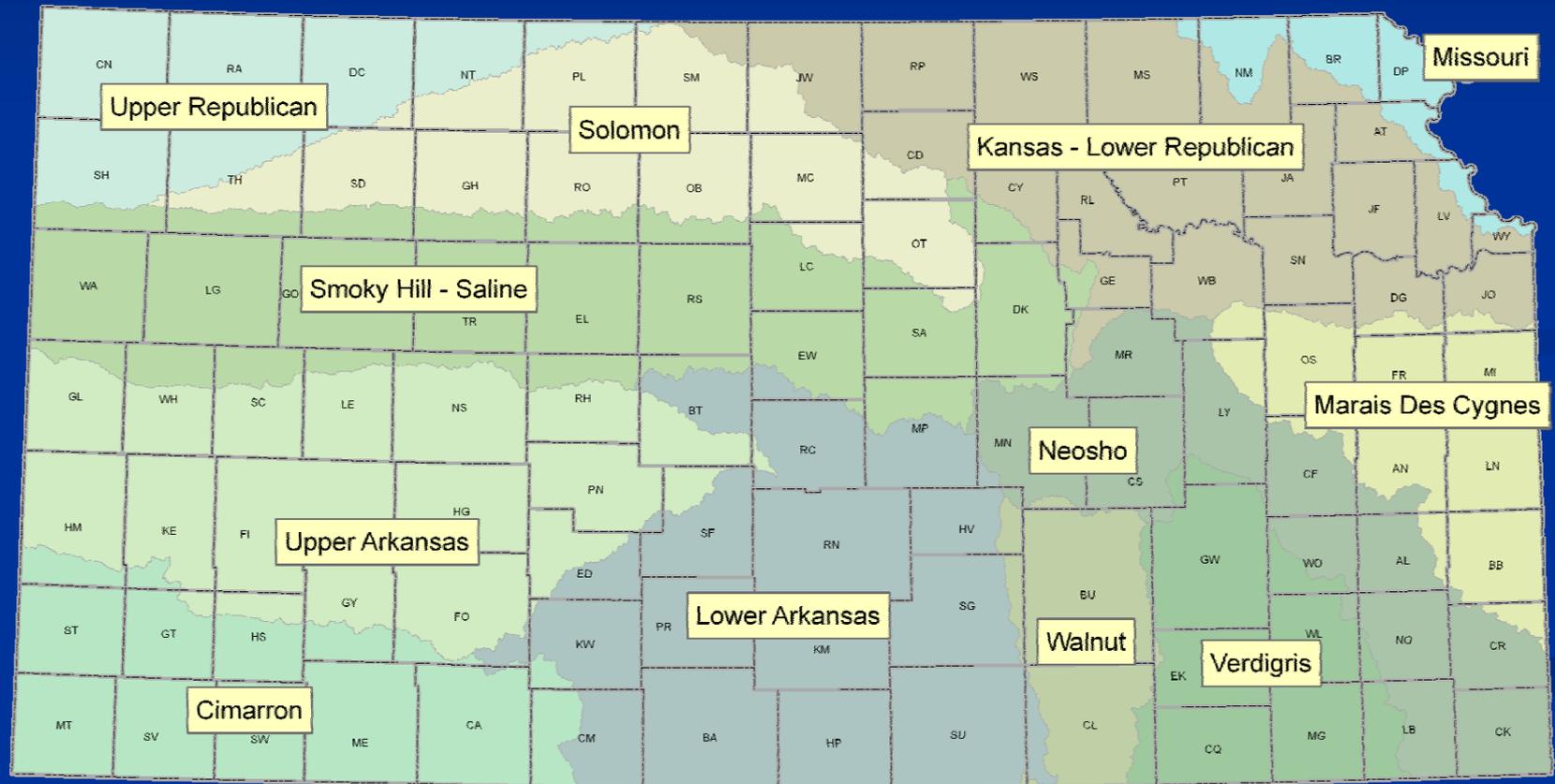
Adrian Polansky
KS Dept. of Agriculture

David Barfield (Acting Chief Engineer)
Division of Water Resources
KS Dept. of Agriculture

Tracy Streeter
KS Water Office

State Water Planning: A Grassroots Approach

Local Input through Basin Advisory Committees

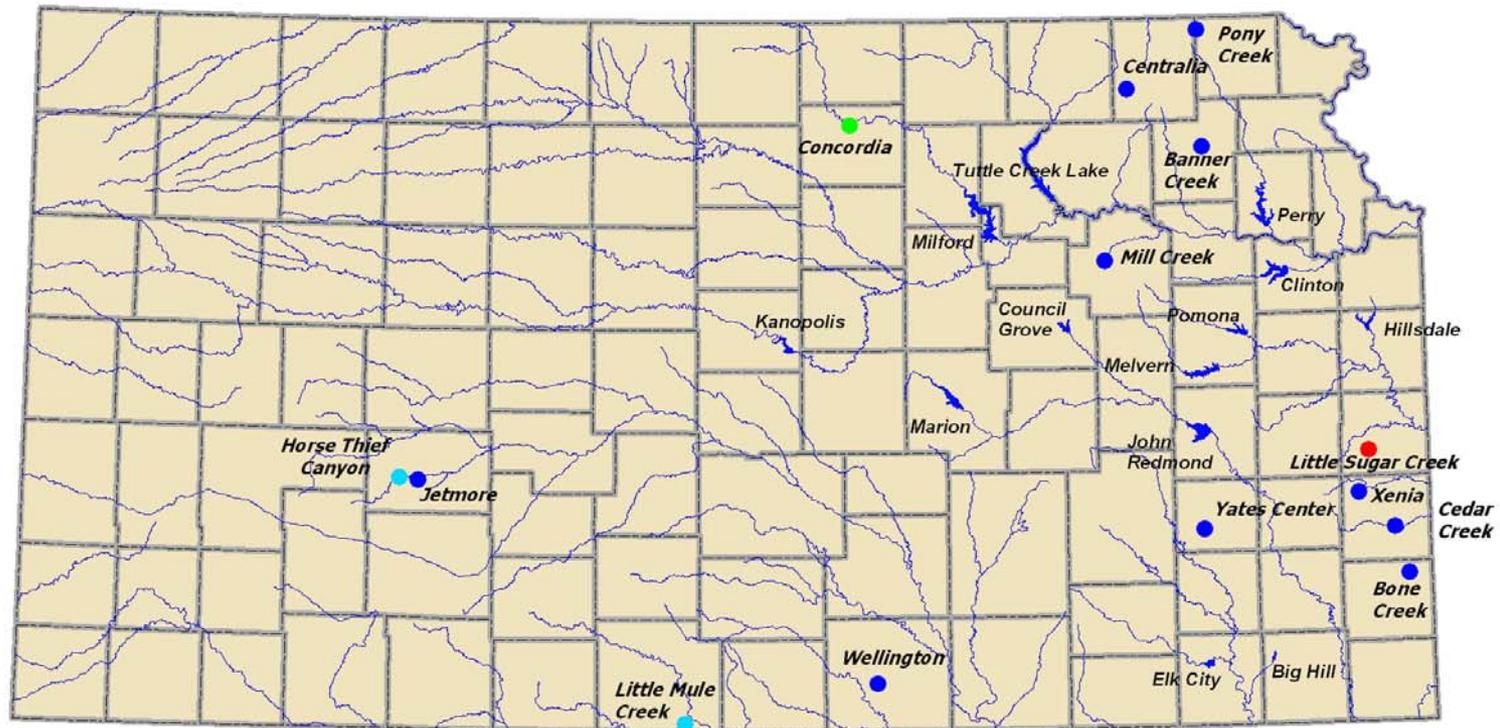


Coordination

- Kansas Water Authority
- Natural Resources Sub-Cabinet
 - Created by Governor Sebelius in 2003 to improve interagency coordination
 - Includes seven state natural resources agencies (KDHE, KDWP, KDA, KWO, SCC, KCC, AHD)
- Agency management planning process
 - Development of interagency strategic plans to enhance **implementation** of State Water Plan priorities

Water Supply Programs

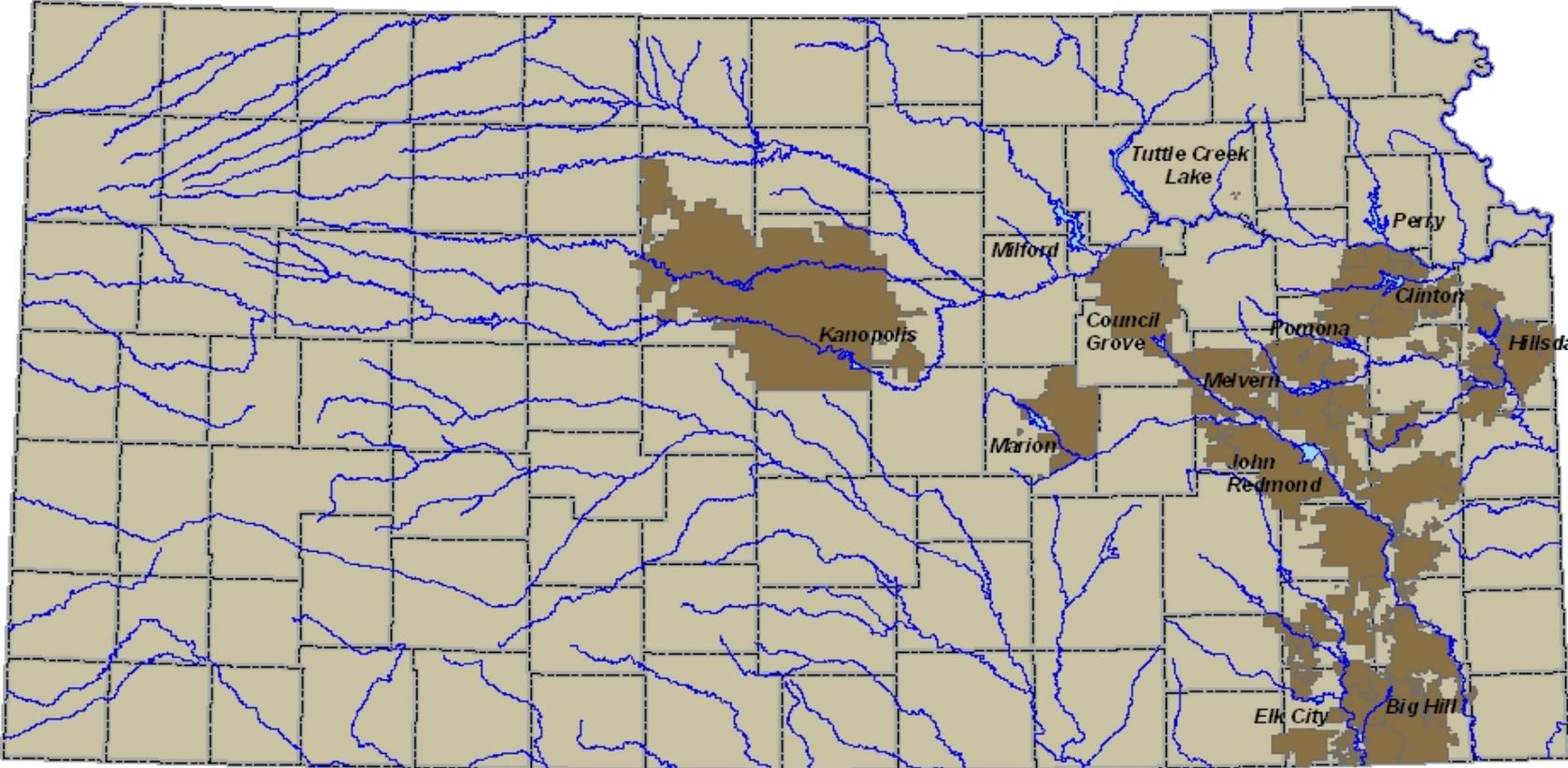
Kansas Water Marketing, Water Assurance District
and Multipurpose Small Lakes Program Lakes



- Multipurpose Small Lakes Program Projects
- Construction
 - Existing
 - Initial Talks
 - Proposed
- Water Marketing and Water Assurance District Lakes



Kansas Water Marketing Lakes and Service Areas

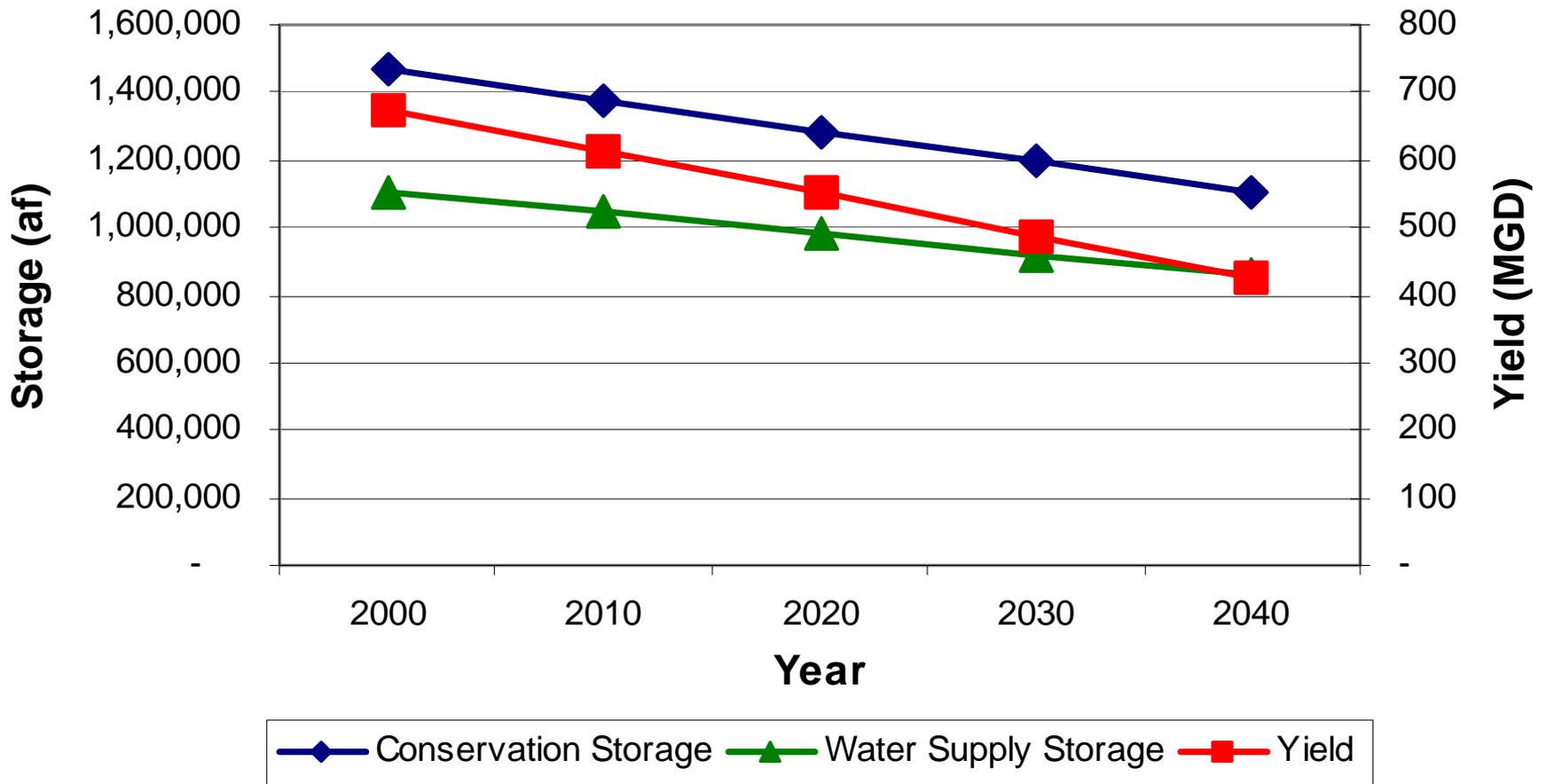


Legend

-  Streams
-  Water Marketing Lakes
-  Service Areas
-  County

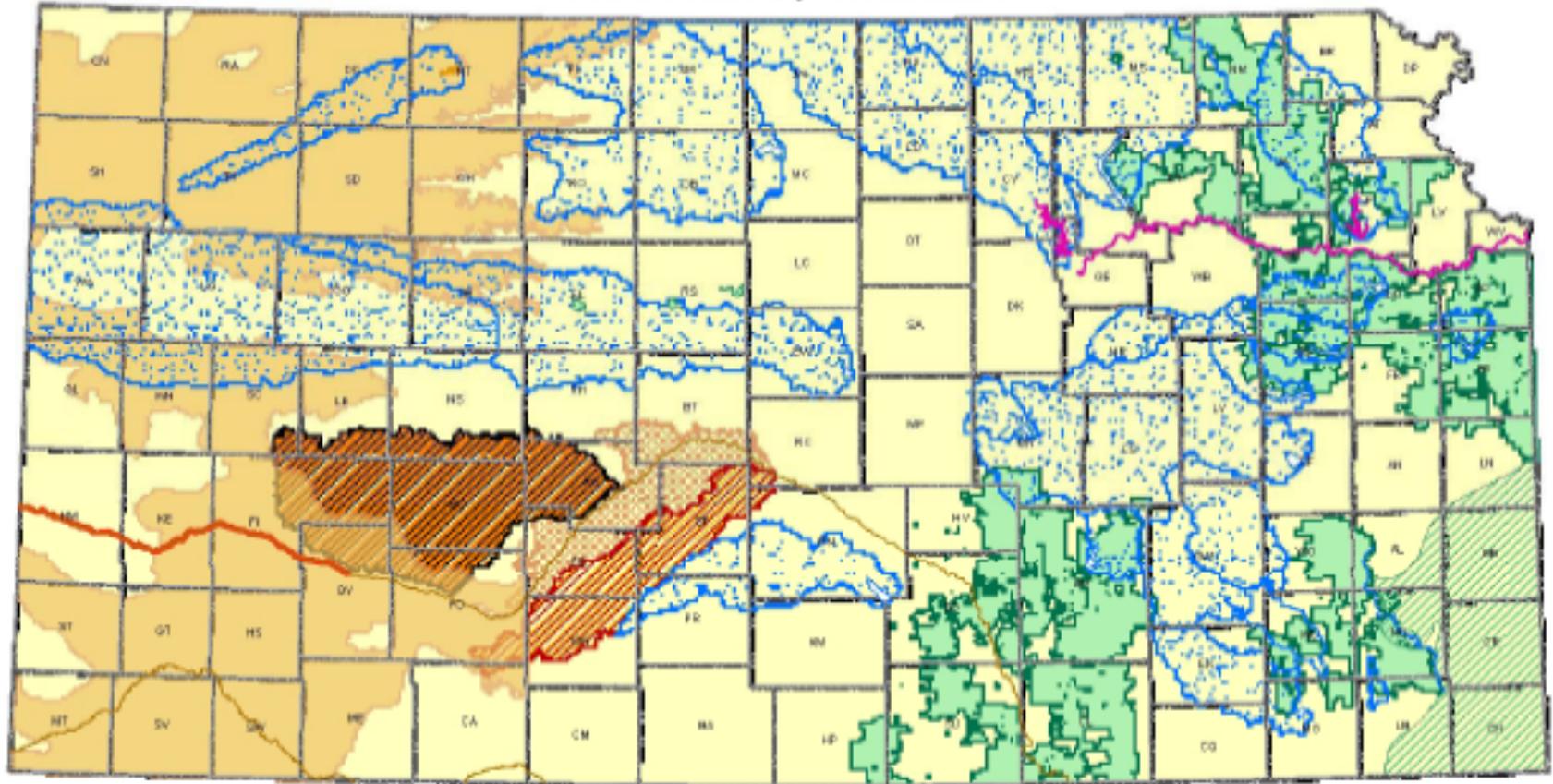
Reservoir Sedimentation Water Supply Impacts

All State Owned Storage



Kansas Water Plan Priorities

Water Plan Projects Initiative



Kansas Water Office

July 14, 2004

High Plains Aquifer

- 1. Ogallala High Plains
- 2. Middle Arkansas Subbasin Management
- 3. Roubidoux Creek Subbasin Management
- 4. Pawnee-Buckner Subbasin Management
- 5. North Sebelius Reservoir Management
- 6. Upper Arkansas River WQ
- 7. Non-Native Phreatophyte Control

Watershed Restoration and Protection

- 8. Watershed Restoration & Protection
- 9. Instream Flow

Regional Public Water Supplies

- 10. Regional Public Water Supplies
- 11. Ozark Plateau Aquifer/Spring River

Capital Development Projects

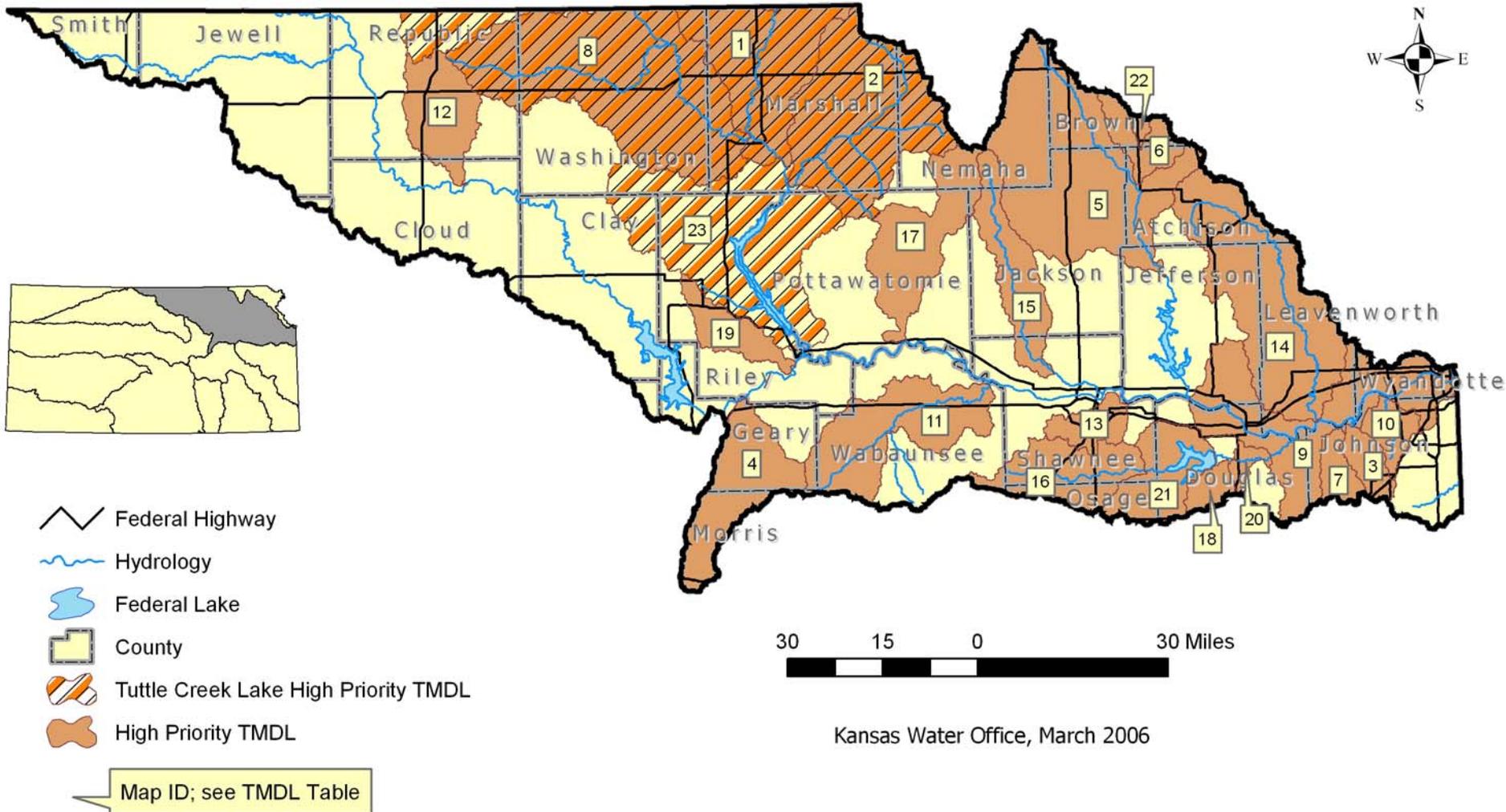
- 12. River Access
- 13. Water Marketing Unfunded Liability

Other Map Features

- Federal PWS Lake
- County

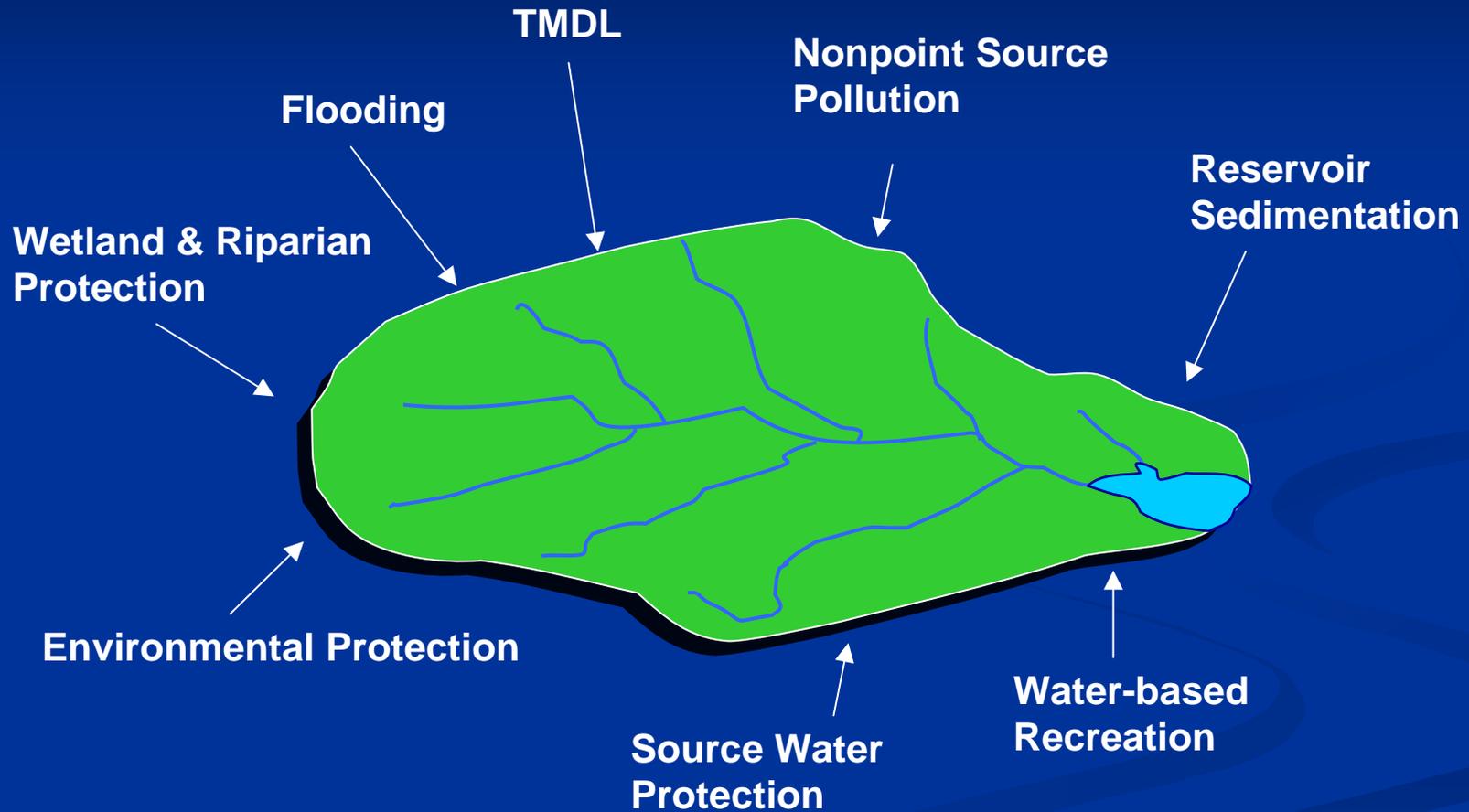
Kansas-Lower Republican Basin

Total Maximum Daily Load High Priority Areas

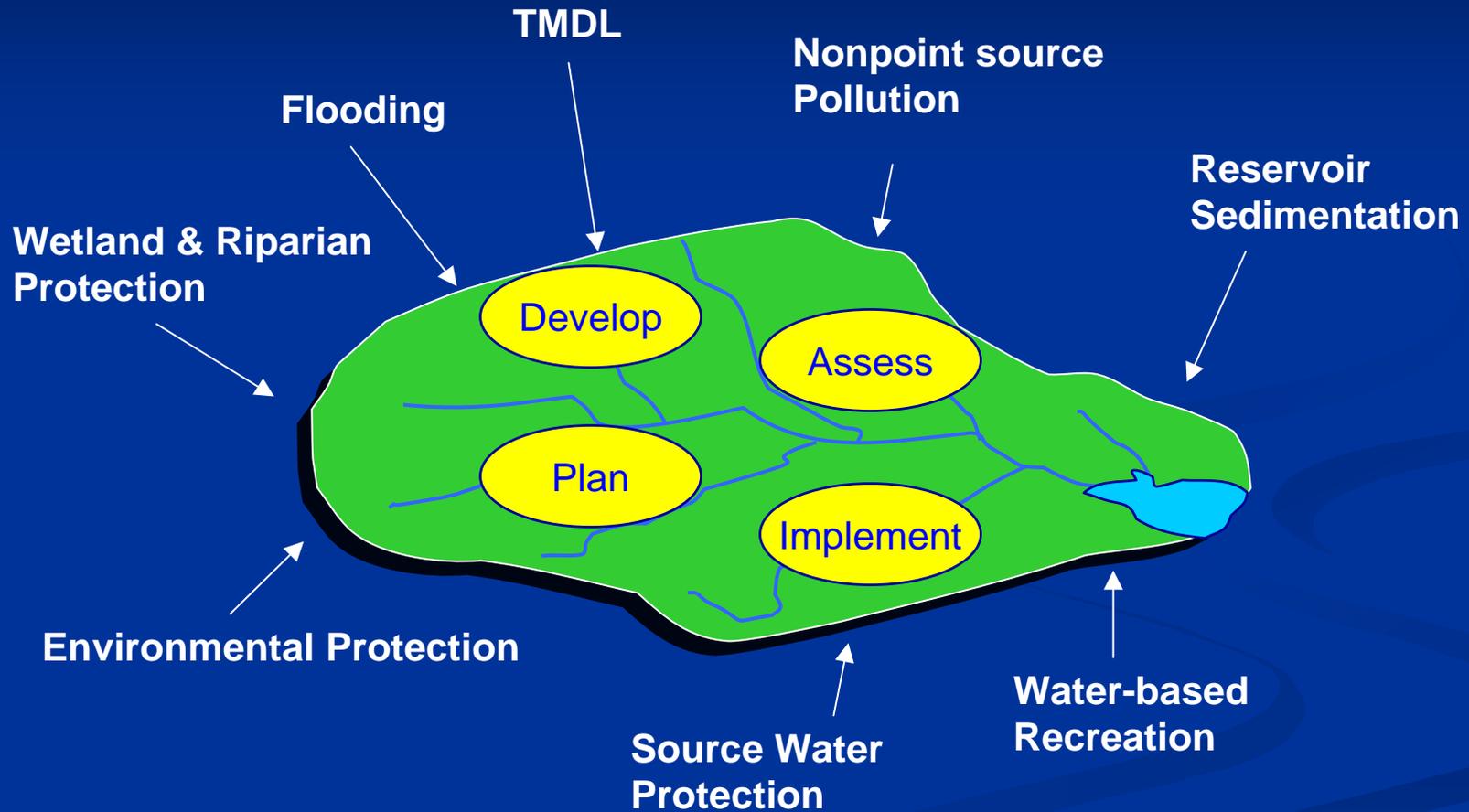


Kansas Water Office, March 2006

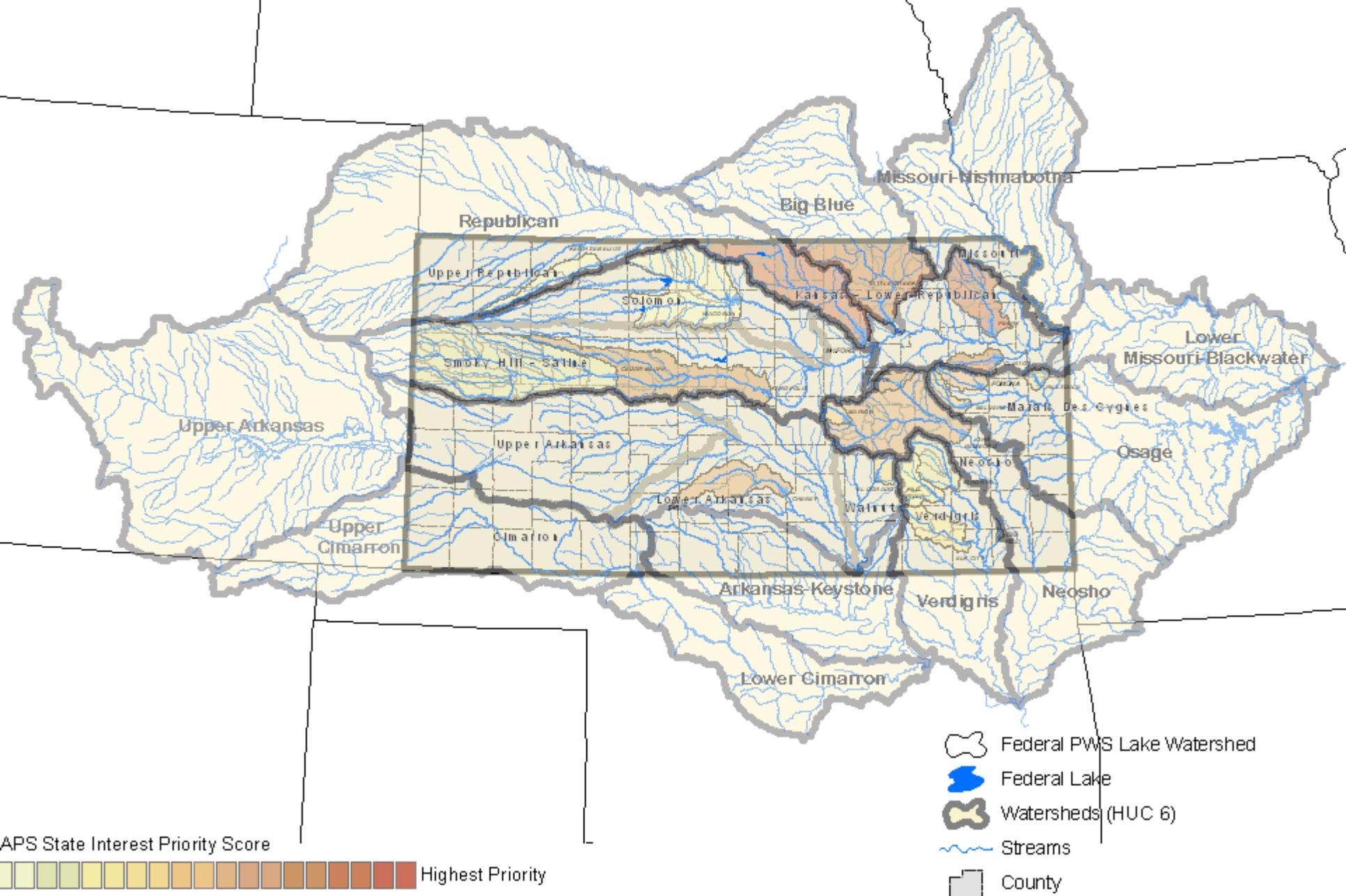
Kansas Water Plan **Watershed Issues**



WRAPS Approach

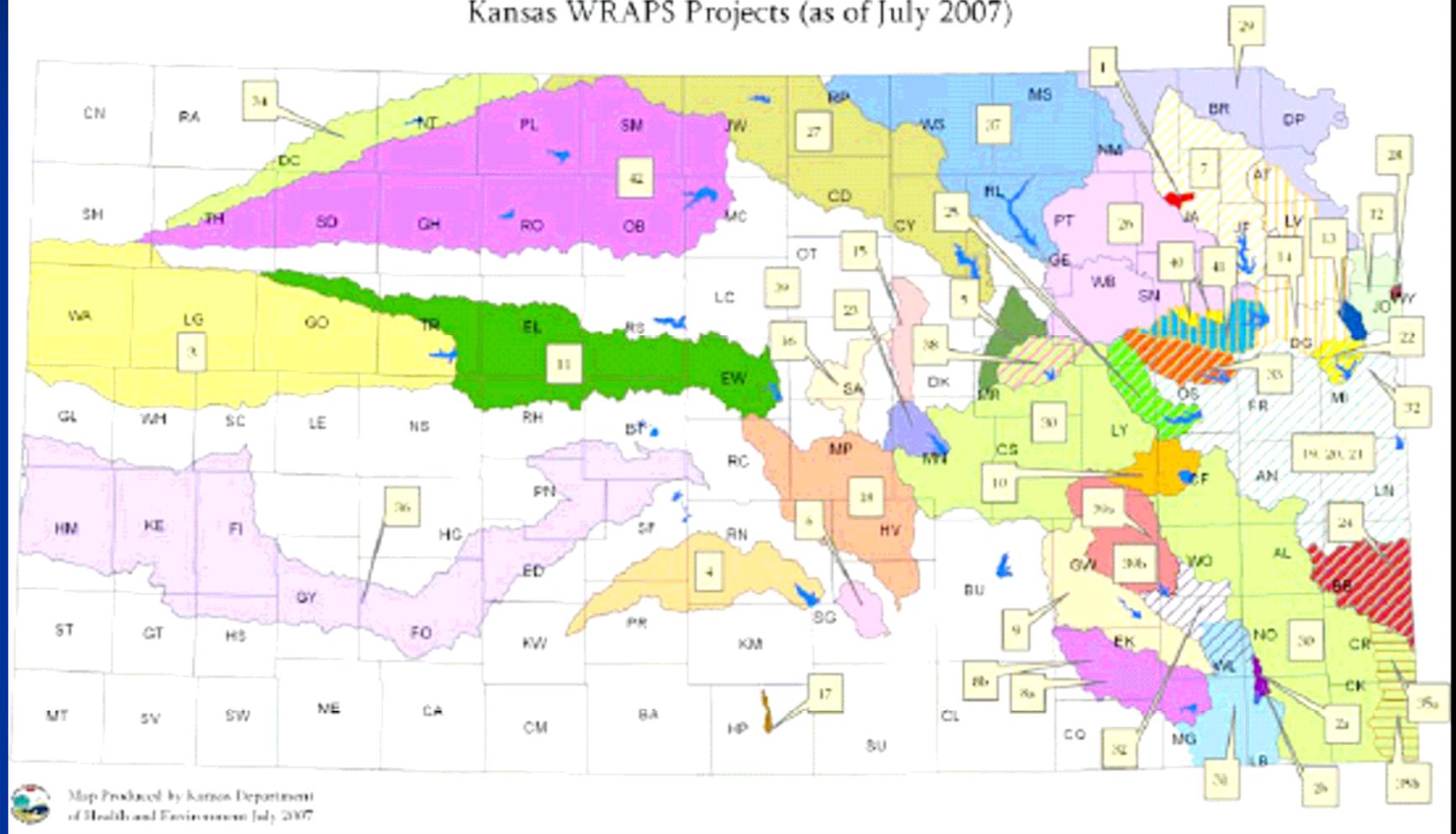


Watersheds of Federal Reservoirs in Kansas Serving Public Water Supply Needs



WRAPS

Kansas WRAPS Projects (as of July 2007)



Kansas Water Plan Update

- Water Quality Policy Section & Kansas-Lower Republican Basin Section, Watershed Restoration & Protection Issue
- Transition to web-based document
- Incorporate WRAPS, Kansas Surface Water Nutrient Reduction Plan, and new KLR TMDL high priority watersheds

Opportunities for Collaboration

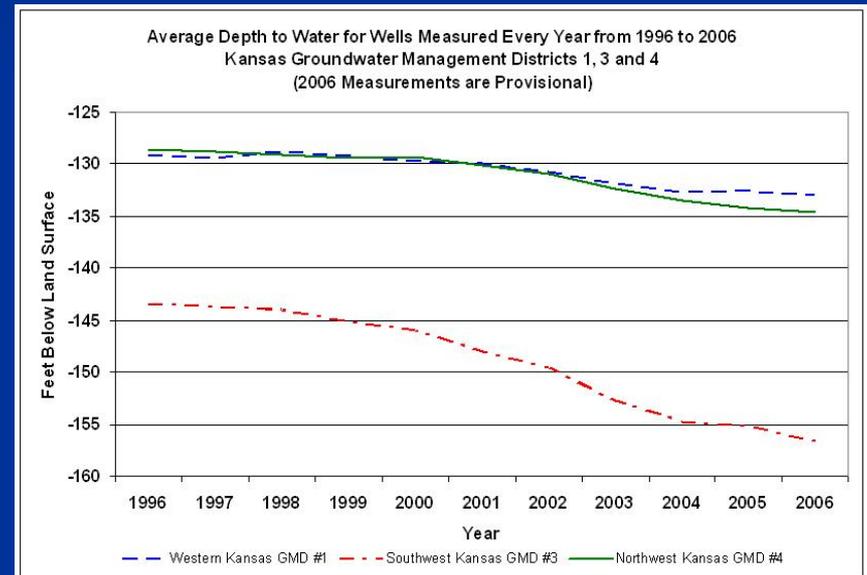
- WRAPS Coordination and Support
- Wetlands Protection Planning and Implementation
- Study Needs
 - Sediment sources, transport and management
 - Watershed BMP evaluation and targeting
 - Reservoir restoration and management



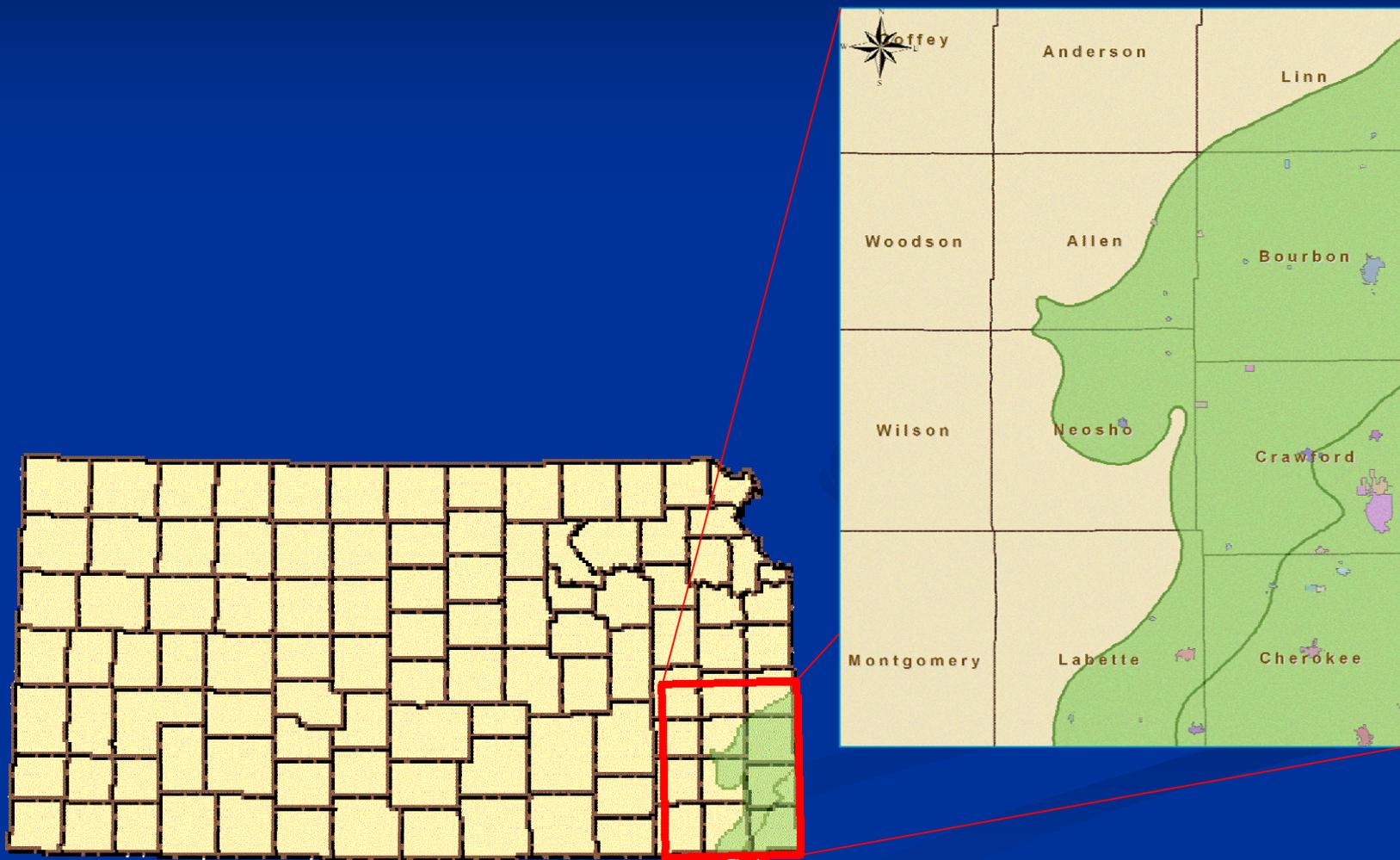


Groundwater Declines

- Ground Water in the West
 - Declining Aquifer Storage



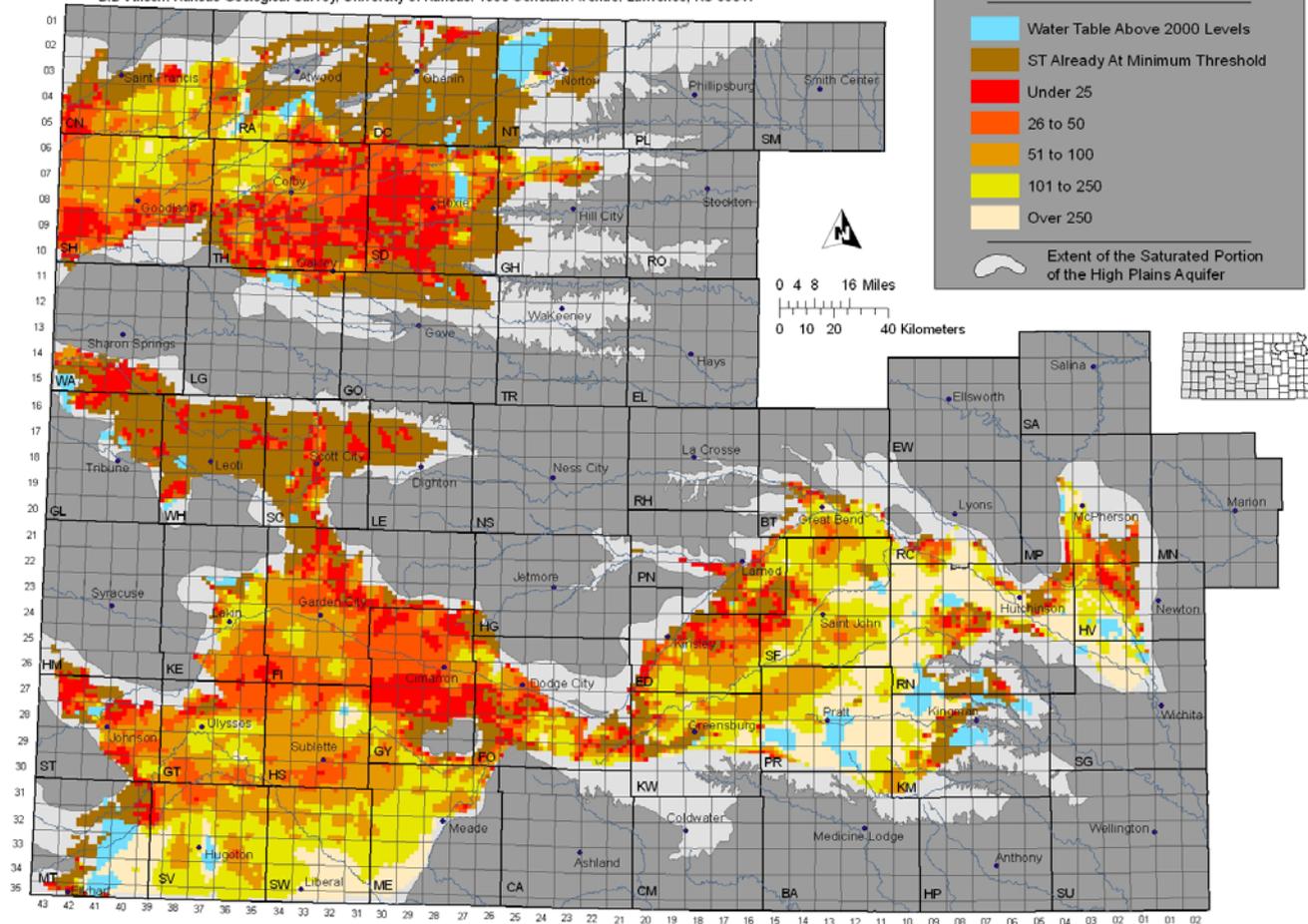
Ozark Plateau Aquifer



Groundwater Declines

Estimated Usable Lifetime for the High Plains Aquifer in Kansas (Based on ground-water trends from 2000 to 2005 and the minimum saturated thickness required to support 400 gpm well yields under a 90 day pumping period with wells on 1/4 section)

B.B. Wilson, Kansas Geological Survey, University of Kansas, 1930 Constant Avenue, Lawrence, KS 66047



Kansas Geological Survey
The University of Kansas
1930 Constant Avenue
Lawrence, Kansas 66047-3726
(785) 864-3965 <http://www.kgs.ku.edu>

KGS Open-File Report 2005-8

The Kansas Geological Survey made a conscientious effort to ensure the accuracy of this report. However, the Kansas Geological Survey does not guarantee this document to be completely free from errors or inaccuracies and disclaims any responsibility or liability for interpretations based on data used in the production of this document or decisions based thereon. This report is intended to make results of research available at the earliest possible date, but is not intended to constitute final or formal publication.

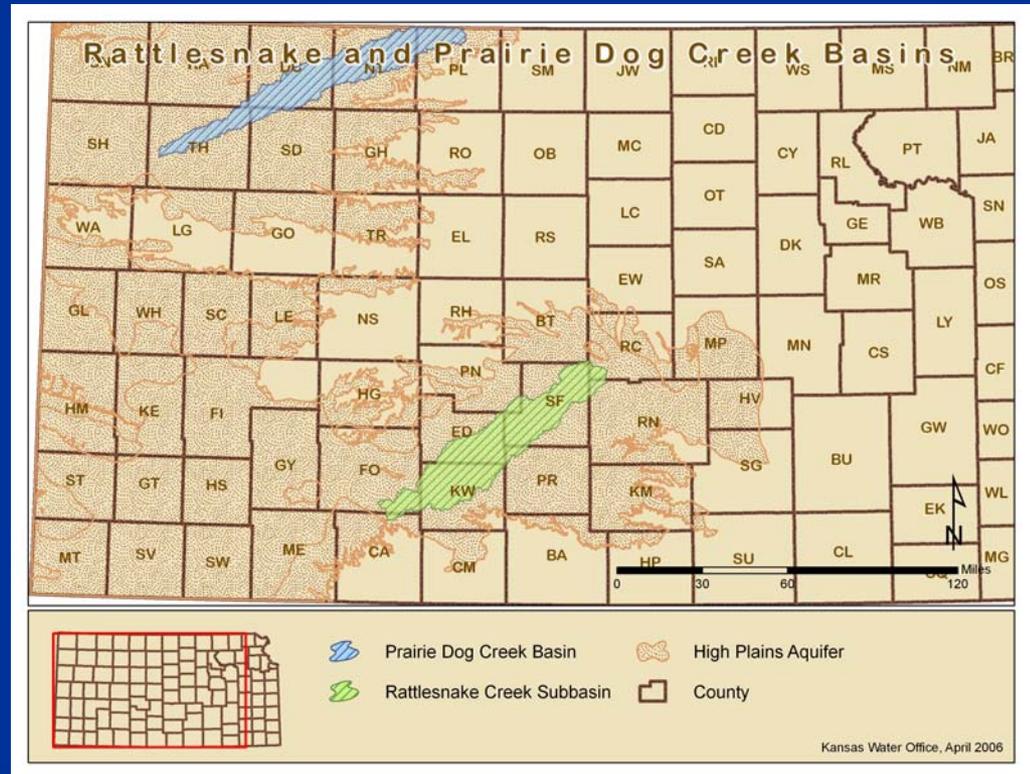
Ground-water data obtained from the Water Information Storage and Retrieval Database (WIZARD) at <http://www.kgs.ku.edu/Mapellan/WaterLevels/index.html>. Minimum ST threshold estimates based on results in KGS OFR 2002-25C which can be obtained at http://www.kgs.ku.edu/HighPlains/OHP2002_25C.pdf

Projection: Lambert Conformal Conic
Standard Parallels: 33 and 45 degrees North
Central Meridian: 98.25 degrees West
Latitude of Origin: 36 degrees North

April 22, 2005

Water Transition Assistance Program (TAP)

- HB2710 established Rattlesnake and Prairie Dog Creeks as priorities
- Includes both State Water Plan funds and Ks v. CO damage award funds
- Permanent water right retirement

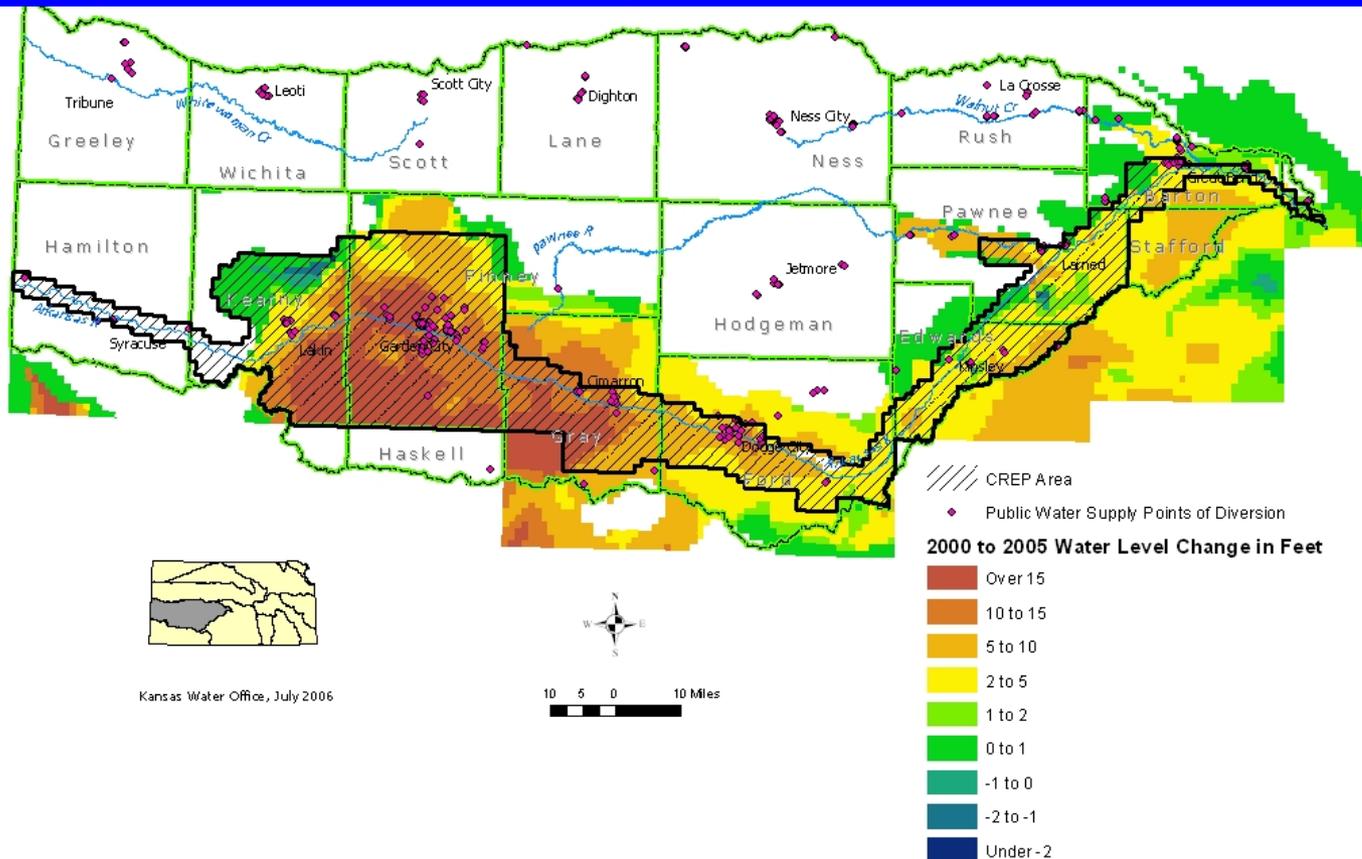


Upper Arkansas River Conservation Reserve Enhancement Program (CREP)



Why the Upper Arkansas River?

- Reduce the declines in and along the Ark River corridor
- Help repair hydrology of areas damaged by Ark River Compact violations
- Leverage funds received from Colorado 20:80 with federal assistance.
- Voluntary, incentive based program to achieve reduced withdrawals.



Original Program Costs

Source	Costs	Net Present Value Costs
Federal contributions	\$155,430,125	\$113,042,930
Non-federal contributions	\$44,269,074	\$44,269,074
<i>Total Project Costs</i>	<i>\$199,699,199</i>	<i>\$157,312,004</i>

Final USDA Negotiations

- 20,000 acre CREP
- CREP can be amended to increase acreage limit
- Irrigated rental rates based on HUCs –
range from **\$100 – \$115** (ctr pivot, SDI)
and **\$90 – \$105** (flood)
- Dryland acres (associated with whole field enrollment)
paid dryland rental rates
- Annual maintenance payment **\$4/acre**
- Potential Federal Contribution: **\$31 million**
- Potential State Payments: **\$2 million**

Long Term Trends and Impacts

- Climate Variability and Change
 - Impact on Water Supply
 - Drought
 - Impact on Water Demand
 - Drought

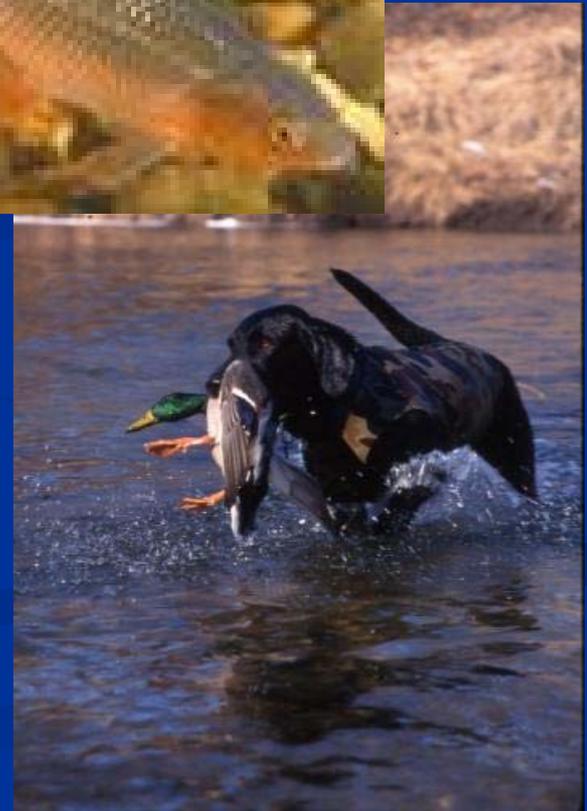


Long Term Trends and Impacts



- Changing Economy
 - Diversification of Western Kansas Economy
 - Ethanol and other biofuels
 - Dairy Industry
 - Value Added Products
 - Increased Energy Demand
 - Kansas Bioscience / Rice Farming

Water Management Complexities





Tracy Streeter

Director

tstreeter@kwo.state.ks.us

www.kwo.org