

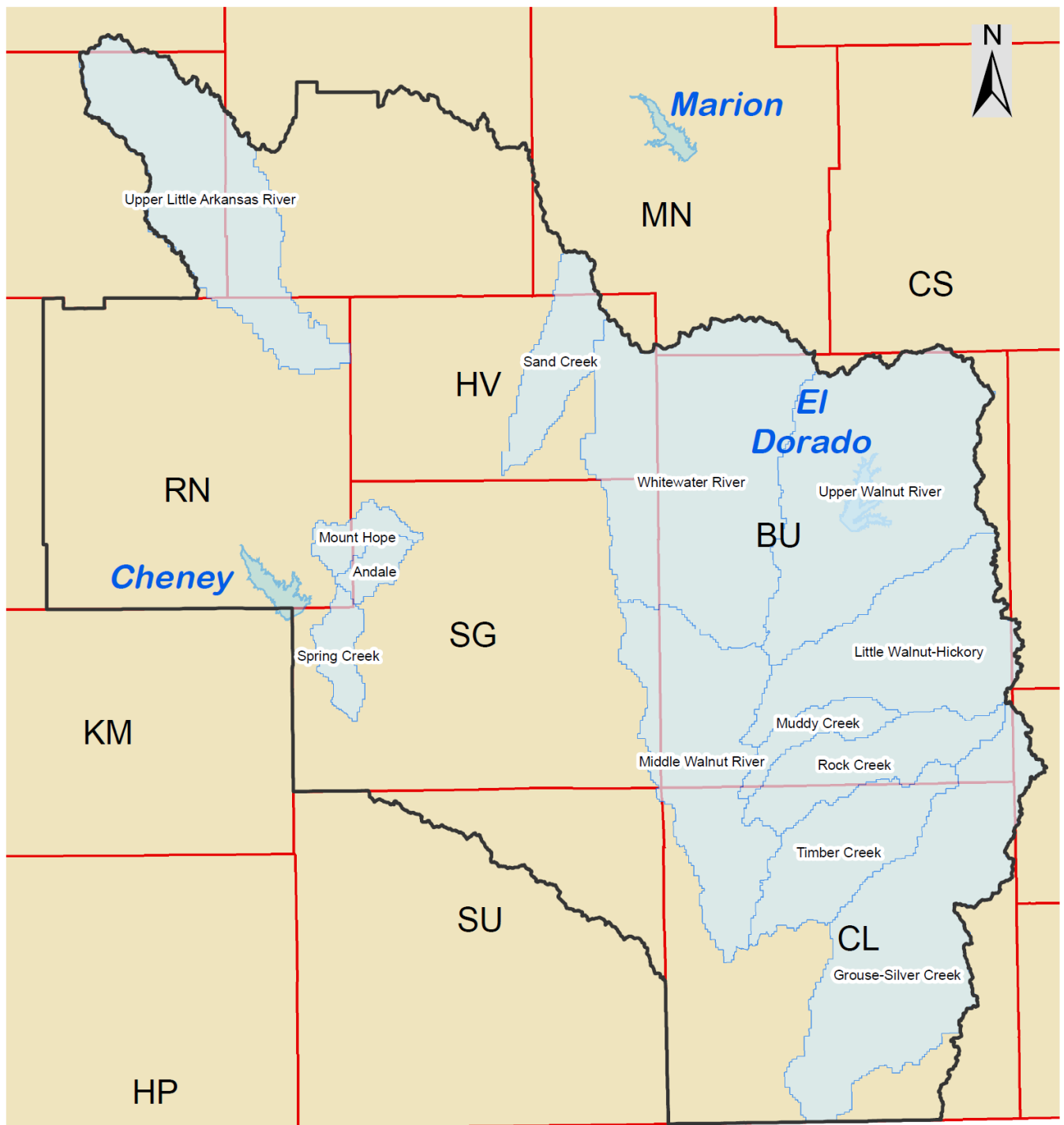
Watershed Districts 101

There are 74 organized watershed districts in Kansas that have flood control structures on the ground encompassing approximately 22 percent of the total land mass in the state. Organized watershed districts have taxing authority and the power of eminent domain, in addition to other powers granted by K.S.A. 24-1209. Each watershed district incorporated under the provisions of this act is a political subdivision of state government. After incorporation of the district by the Secretary of State and certification of the petition for organization by the Chief Engineer, the board of directors of the district has authority to annually levy a tax against all of the taxable, tangible property of the district for the purpose of establishing a general fund for payment of engineering, legal, clerical, land and interests in land, installation, maintenance, operation and other administrative expenses for the purpose of protection and preserving the land and the water of the area.




After a watershed district is incorporated, the board must submit to the Chief Engineer - Division of Water Resources (DWR), Kansas Department of Agriculture - for review and approval, a general plan. The general plan includes a physical and economic description of the watershed, problems occurring in the watershed including floodwater, sediment and erosion damage, and other problems relating to water management, existing or proposed works of improvement, explanation of installation costs, accomplishing the plan, location and extent of areas benefited and provisions for operation and maintenance of the floodwater retarding structures after installation. The USDA Natural Resources Conservation Service (NRCS) may assist watershed districts in the development of the general plan. The general plan is typically reviewed every five years or as needed yearly. It can also be amended.

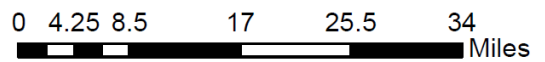
Kansas watershed districts are political subdivisions of state government. District directors are public officials and district employees are public employees. In order to maintain the public trust and be eligible for public funds, watershed districts must comply with applicable Kansas Statutes. A locally elected board of directors of three to fifteen members is responsible for the administration of the watershed district. At least one director represents each subwatershed located within the district. The directors serve without compensation but may be reimbursed for expenses incurred in the performance of their official duties. A watershed district board is required to have regular meetings no less than once each quarter during the year. An annual meeting is also held for the election of directors whose terms expire, as well as to report on the financial condition and activities of the district including proposed projects.

Watershed districts may employ personnel to assist in the performance of their statutory powers and duties. Most watershed districts do not employ full-time staff and do not have an office. Organized watershed districts are required to inspect their dams on a yearly basis or after a flood event to assure the structures are operating as designed: sound and safe. Most watershed districts hire a contracting officer. The contracting officer's primary duties are to handle the administrative procedures necessary during the construction of flood detention dams. The contracting officer also oversees the operation and maintenance of the structures. Maintenance includes operating the valves, inspecting the principal and auxiliary spillways for damage, maintaining the stilling basin, controlling noxious weeds and trees on the dam, maintaining the fence. Annual Operation and Maintenance (O&M) inspections reports are required to be submitted to the Division of Conservation (DOC) for all watershed district sites. All federally funded sites O&Ms are also required to be submitted to the NRCS state Office in Salina. NRCS typically inspects 1/3 of the dams in their county each year with the contracting officer to assure maintenance issues are addressed in a timely manner. Significant and high hazard dams are required to have a safety inspection conducted by a Kansas licensed professional engineer. High hazard dams are required to be inspected every three years and significant hazard dams, every five years. Significant and high hazard dams are required to have emergency action plans.



Equus-Walnut RPA Watershed Districts

-  Equus-Walnut RPA
-  County
-  Watershed District



Kansas Department of Agriculture, Division of Conservation

FUNDING

NRCS: Federal - PL 566 –

- The Watershed Protection and Flood Prevention Act (Public Law 83-566) authorized the Secretary of Agriculture to provide technical and financial assistance to watershed districts for surveying, planning and installing watershed projects. The Act was passed on August 4, 1954, when Congress recognized the serious natural resource and economic damages suffered in our nation's watersheds from flooding and sedimentation issues. USDA Natural Resources Conservation Service (NRCS) is the agency responsible for program management. The Act provides technical and financial assistance to sponsors on new projects on watersheds up to 250,000 acres (391 sq. miles). Most of the structures built were designed for a 50 year life.
- This law was amended in 2000 and now includes rehabilitation. The purpose of rehabilitation is to extend the service life of the dams and bring them into compliance with applicable safety and performance standards or to decommission dams so they no longer pose a threat to life and property. The federal government may provide up to 65 percent of funding for rehabilitation projects and project sponsors provide 35 percent.

Kansas Department of Agriculture – Division of Conservation (DOC)

Since 1977, the Kansas Legislature (Authorized in K.S.A. 2-1915 by the 1976 Legislature) has appropriated funds for assistance in the construction of flood detention and grade stabilization dams for watershed districts, drainage districts and other special purpose districts. These funds are appropriated to the Kansas Department of Agriculture, Division of Conservation (DOC) and allocated to watershed districts for flood control projects. The DOC has developed administrative regulations for the implementation of the state assistance in watershed dam construction and rehabilitation.

The DOC Watershed Dam Construction Program provides state financial assistance to organized Watershed, Drainage or other Special Districts for the implementation of flood control structural and non-structural practices. These practices provide protection of agricultural land, urban areas, roads, bridges and utilities, in addition to providing water for livestock and in some instances for rural fire departments, enhancing wildlife and trapping sediment and pollutants. Construction and rehabilitation of flood control and/or grade stabilization dams are the main practices and components of this program.

The Division of Conservation revised the Watershed Dam Construction Program in 2006 to address the administration of the state cost-share financial assistance pertaining to rehabilitation. The following is a summary of the revised program: Watershed Dam Rehabilitation - Rehabilitation of a watershed dam means any work, except work required due to inadequate operation and maintenance, to extend the service life of a dam and to meet the applicable safety and performance standards. Eligible rehabilitation activities may include sediment removal, structure upgrade and replacement of deteriorated components. Up to 70% of the cost of the rehabilitation plus the actual costs of engineering, geologic investigations and inspection costs not to exceed 10% of the actual cost of construction. The maximum cost-share per applicant/district per year is \$120,000.

HAZARD CLASSIFICATION

Federal and state hazard classifications differ slightly when it comes to Class B dams. Though the state hazard classification trumps the federal classification as far as dam safety – Kansas Department of Agriculture – Division of Water Resources (DWR) administers the dam safety program. The State of Kansas (DWR) uses three hazard classifications to categorize potential loss and rate all dams:

Class A (low hazard): Failure of a Class A dam may cause damage to uninhabited buildings, agricultural land, undeveloped land such as hiking trails, or traffic on low-volume roads (500 or fewer vehicles traveling by in an average 24-hour period).

Class B (significant hazard): Failure of a significant hazard dam may endanger a few lives or cause damage to an isolated home, public utility serving a small volume of customers, traffic on a moderate-volume road (501 through 1,500-vehicle use in average 24-hour period), recreation facilities including campgrounds intermittently used for sleeping and serving a relatively small number of persons, or low-volume railroad tracks.

Class C (high hazard): Failure of a high hazard dam could potentially cause extensive loss of life or damage to more than one home, industrial or commercial facilities, a public utility serving a large number of customers, traffic on high-volume roads (more than 1,500-vehicle use in average 24-hour period), a frequently-used recreational facility serving a large number of persons, or a high-volume railroad line. Two or more individual Class B hazards below a dam also result in a Class C rating.

Reclassification. Basically, three factors can change a dam's hazard classification.

- The first and most common is a change in downstream hazards such as additional homes or increasing traffic on roads. Removal of hazards below a dam also can lower a hazard class, for example, from high to significant.
- A missed hazard in the original determination also can trigger a hazard classification. Dams classified in the past may have been reviewed without a breach inundation map and therefore lack sufficient downstream analysis to properly assess the hazard classification.
- The third item prompting hazard reclassification is statute or regulation changes. The primary example of this relates to traffic counts in areas that might be flooded if a dam fails. Earlier regulations evaluated roadways as simply primary or secondary rather than using traffic counts.

In case of hazard classification change, DWR usually informs the sponsor/owner of the change in hazard classification and requires upgrading. That may require structural upgrading, additional monitoring and emergency action plan development. Assuming the classification change is an upgrade (from a lower hazard rating to a higher one), the owner has several options to consider, including modifying the dam, increasing spillway capacity, increasing dam height, or reducing permanent storage. Dam owners also should consider contacting the owner of the hazards to discuss possible removal or relocation from the breach inundation area, or flood-proofing or breach-proofing. Another option may be to breach or decommission the dam.

BUTLER COUNTY SPECIFICS

There are 6 watershed districts located in Butler County with 129 dams. Five of these districts are managed out of the Butler County Conservation District office (Rock, Muddy, Upper Walnut, Little Walnut Hickory, Whitewater). Middle Walnut Watershed JD #60 is run separate of the others.

Butler County Planning and Zoning has breach routes identified on their maps so when a landowner comes in for a permit to build a home or other structure, the breach route is identified prior to new construction and structures are thus prevented from being built in the breach route.

<https://www.bucoks.com/DocumentCenter/View/166/Article-19---Floodwater-Retarding-Dam-Breach-Impact-District?bidId=>

Rock Creek WJD #28 – Authorized for Planning in 1962; last dam built in 1978; 22 dams; 4 high hazard dams, 3 significant hazard dams (a few dams are in Cowley County).

Little Walnut Hickory WJD #18 – Authorized for Planning 1961; last dam built in 1972; 40 dams; 1 high hazard dam, 1 significant hazard dam.

Muddy Creek WJD #27– Authorized for Planning 1962; last dam built in 1967; 2 dams; 1 high hazard dam.

Whitewater WJD #22– Authorized for Planning 1966; last dam built in 2007 (several dams are in Harvey, Marion and Sedgwick County); 25 dams; 3 high hazard dams, 7 significant hazard dams.

Upper Walnut WJD #33– Authorized for Planning 1966; last dam built in 2005; 30 dams; 4 high hazard dams, 1 significant hazard dam.

Middle Walnut WJD #60 Authorized for Planning 1968; last dam built in 1994; 10 dams in Butler Co (additional dams in Cowley Co); unknown if any high or significant hazard dams.

Of the 5 Watershed Districts run out of Butler County Conservation District:
42% of our dams are 50 years old or older (first ones constructed in 1965)
30% of our dams are 40 years old or older
14% of our dams are 30 years old or older
9% of our dams are 20 years old or older
5% of our dams are 10 years old or older (last one constructed in 2007)

ISSUES

With aging dams comes additional expense. We have had to replace spillway pipes, repair stilling basins and auxiliary spillways (due to flood events), plug holes, replace fence. Any changes or modifications to the structure, auxiliary spillway or outlet works require engineering designs and those designs have to be approved by DWR (and NRCS if the dam is provided funding through federal rehabilitation). Permits (DWR and U S Army Corps of Engineers (USACE) 404) are to be acquired and this process can be time-consuming and costly.

Homes/structures below dams that were determined out of the breach route when the structures were built now are considered in the breach route due to new technology such as LiDar (3D mapping). In some cases, this changes the hazard classification. Several of our watersheds have been working with the USDA NRCS Federal Rehabilitation Program to complete assessments on some of these structures that have hazard classification changes. The options that are being proposed are very expensive.

High hazard and significant hazard dams require emergency action plans. These plans are detailed and specify procedures to follow should an emergency event occur at a dam site. These watershed dams were built to NRCS Standards and Specifications and are required to be maintained. So far, Kansas structures have not had issues with breaches. Watershed districts are now facing enormous costs to make these high hazard structures meet current DWR guidelines. We have sent a letter to DWR to ask the question, “why do we need to improve the structure when we already have an Emergency Action Plan in place in the unlikely event of a total failure (breach) of a structure?” DWR is still requiring modifications to the structure due to hazard classification change.

Example 1: Upper Walnut Site #21 – northwest of Cassoday, west of the Turnpike.

Upper Walnut Site #21 was re-classified to a high hazard structure. NRCS, through PL566, paid for an assessment of Site #21 and developed these alternatives:

1. Federal Decommissioning (breach dam, restore area to original free flowing rate) - \$1,687,000.
2. Rehabilitation – to meet current high hazard dam classification, \$2,591,000.
3. Non-structural measures – remove or protect hazards (house) and maintain lower hazard classification, \$201,300.

Federal program pays 65%, Watershed District pays 35%; Upper Walnut gets around \$48,000 in funds yearly through their tax levy. Keep in mind they still have to maintain the other 29 structures; 3 additional structures are also classified as high hazard.

Example 2: Muddy Creek Site #4-6 – northeast of Douglass.

After reviewing the assessment done through funds from PL566 for Site #4-6, Muddy Creek Board decided to proceed with the following alternative presented: Rehabilitation to a high hazard class which will include widening and raising the existing emergency spillway, raising the top of dam 5.2 feet, replacing principal spillway and trash rack, adding a sand filter diaphragm to the principal spillway, moving 3 structures and flood proofing 2 others, modifying upstream bridges and obtaining additional easements. Total estimated cost is \$4,450,000.

Muddy Creek Watershed, would be responsible for approximately \$1.5 million of that cost. Their annual budget is about \$16,000. A public meeting was held April 29 and the Muddy Creek Board will make a decision after all public comments are reviewed.

Watershed Districts in the Equus/Walnut:

Complete directory found at https://agriculture.ks.gov/docs/default-source/default-document-library/2019-kansas-watershed-and-drainage-district-directory9c27e9002e6262e1aa5bff0000620720.pdf?sfvrsn=47458bc1_0

ANDALE WATERSHED JOINT DISTRICT NO. 9

6363 Lazy Day Lane, Andale, KS 67001

ARK RIVER TRIBUTARY JOINT DISTRICT NO. 64 - (No Structures Built as of 2019)

CLEAR CREEK WATERSHED JOINT DISTRICT NO. 30 - (No Structures Built as of 2019)

GOOSE CREEK WATERSHED JOINT DISTRICT NO. 40 – (No Structures Built as of 2019)

GROUSE-SILVER CREEK WATERSHED JOINT DISTRICT NO. 92

PO Box 256, Burden, KS 67019, 620-438-6453 (Office)

President - Roger Black, Arkansas City

Contracting Officer & Engineer - Norman Roelfs, Wichita

Directors & Officers - Mark Bogner, Winfield, Secretary, Mike Smith, Burden, Treasurer, Noel Richardson, Winfield, Jerry Ashenfelter, Cambridge, Jim Hardy, Arkansas City, Jerry Lester, Winfield

David Miller, Winfield, Donnie Roths, Winfield

LITTLE WALNUT-HICKORY WATERSHED JOINT DISTRICT NO. 18

2503 Enterprise, Suite B, El Dorado, KS 67042-3229, 316-320-3549 (Office)

President - Wayne Chambers, Leon

Contracting Officer - Sam Minnick

Directors & Officers - Mike Rierson, Leon, Secretary, Jim Overstake, Leon, Treasurer, Tom Dixon, Leon Keith Semisch, Leon, Brenda Nyberg, Office Secretary, brenda.nyberg@ks.nacdnet.net

MIDDLE WALNUT WATERSHED JOINT DISTRICT NO. 60

PO Box 652, Douglass, KS 67039-0652, 316-746-2644 (Office/Fax), E-mail: barnetttax@gmail.com

President - David Bowman

Contracting Officer - Dale Steward, 620-358-3243

Directors & Officers - Joe Watt, Rock, Vice-President, Keith Cox, Douglass, Secretary, Herb Shaffer, Douglass, Treasurer, Jake Shaffer, Wichita, J.R. Jameson, Udall, Marion Futhey, Rose Hill, Mickie Decker, Office Secretary.

MOUNT HOPE WATERSHED JOINT DISTRICT NO. 54 (No Structures Built as of 2019)

11604 E. Parallel Road, Haven, KS 67543

President & Contracting Officer

Lyle Newby, 620-465-3862

Directors & Officers - Delton Miles, Mount Hope, Treasurer, Cecil McCurry, Mount Hope, Joe Raple, Mount Hope, James McCormick, Mount Hope, Leon Dick, Mount Hope, Randy Dick

MUDDY CREEK WATERSHED JOINT DISTRICT NO. 27

2503 Enterprise, Suite B, El Dorado, KS 67042-3229, Phone 316-320-3549 (Office)

President - David Piha, Douglass

Contracting Officer - Jason Piha

Directors & Officers - Rick Stewart, Douglass, Secretary/Treasurer, J. B. Hilyard, Douglass, George Bannon, Douglass, Brenda Nyberg, Office Secretary, brenda.nyberg@ks.nacdnet.net

ROCK CREEK WATERSHED JOINT DISTRICT NO. 28

2503 Enterprise, Suite B, El Dorado, KS 67042-3229, Phone 316-320-3549 (Office)

President - Daniel Deepe, Douglass

Contracting Officer - Twila Flagler

Directors & Officers - Kirk Kennedy, Atlanta, Secretary, Robert Gimple, Douglass, Treasurer, Pat Doyle, Douglass, Roger Rierson, Leon, Brenda Nyberg, Office Secretary, brenda.nyberg@ks.nacdnet.net

SAND CREEK WATERSHED JOINT DISTRICT NO. 68

1405 S Spencer Road, Newton, KS 67114-4126, 316-283-0370 Ext 1332

President & Contracting Officer - Tom Cowan

Attorney - Donald Snapp, Newton

Directors & Officers - Emil Schmidt, Walton, Vice-President, John Unruh, Newton, Secretary, Bill Hamm, Walton, Treasurer, Vern Koch, Newton, Larry Schmidt, Sedgwick, Ed Stahl, Sedgwick, Mark Sauerwein, Sedgwick, Harvey County Conservation District Manager, Office Secretary

SPRING CREEK WATERSHED JOINT DISTRICT NO. 16

3651 S 327th Street W, Cheney, KS 67025, 316-773-9997 (Office); 316-660-1810 (Fax)

President - Terrell Black, Cheney

James Munyon - Office Secretary

Directors & Officers - David Lilly, Cheney, Vice-President, Joe Baalman, Cheney, Treasurer, Cleo Zoglman, Cheney, Duane Hampel, Garden Plain

TIMBER CREEK WATERSHED JOINT DISTRICT NO. 38

19547 72nd Road, Burden, KS 67019, Phone 620-221-2091 (O), E-mail: cowleyfb@kfb.org

President - Scott Drake, Winfield

Directors & Officers - Barry Barber, Winfield, Richard Tatum, Burden, Joe Haggard, Atlanta, Bradley McMinn, Burden, Denise Noonan-Middleton, Burden, Sec/Treasurer, Brian Grow, Maintenance

UPPER LITTLE ARKANSAS RIVER WATERSHED JOINT DISTRICT NO. 95

265 Main Street, Little River, KS 67457, Phone 620-897-5595 (Office)

E-mail: ular@lrmutual.com; Gary Regehr

President - Gary Regehr, Inman

Directors & Officers - Nathan Olander, Little River, Vice-President, Sharon Frazier, Little River, Secretary Bill Oswalt, Little River, Treasurer, Ken Ratzlaff, Buhler, Jerald Robinson, Hutchinson, Arlyss Schroeder, Inman, Ryan Barta, Little River, Wade Wright, Little River, Jeff Shaw, Little River, Dorothy J. Stagner, Office Sec., bodo@lrmutual.com

UPPER WALNUT WATERSHED JOINT DISTRICT NO. 33

2503 Enterprise, Suite B, El Dorado, KS 67042-3229, 316-320-3549 (Office)

President - David Greene, El Dorado

Contracting Officer - Sam Minnick

Directors & Officers - Eldon Teter, Eureka, Vice-President, David Fullinwider, El Dorado, Secretary, Arlan Stackley, El Dorado, Treasurer, Mason Greene, El Dorado, Jim Nuttle, Jr., El Dorado, Carrol Walters, Burns, Greg Wiley, El Dorado, Brenda Nyberg, Office Secretary, brenda.nyberg@ks.nacdnet.net

WHITEWATER RIVER WATERSHED JOINT DISTRICT NO. 22

2503 Enterprise, Suite B, El Dorado, KS 67042-3229, Phone 316-320-3549 (Office)

President - Harry Clayton, Wichita

Contracting Officer - Owen Maddux

Directors & Officers - Stanley Entz, Whitewater, Vice President, Dan Fagan, Benton, Secretary, Mike Miller, Valley Center, Treasurer, Rodney Borne, El Dorado, Kendall Claassen, Whitewater, Darell Sommers, Potwin, Gary Wedel, Burns, Brenda Nyberg, Office Secretary, brenda.nyberg@ks.nacdnet.net

REFERENCES

Kansas Department of Agriculture – Division of Conservation

Hakim Saadi, P.E.

Program Manager

6531 SE Forbes Avenue, Suite B

Topeka, Kansas 66619

785-291-3099

Email – hakim.saadi@ks.gov

<https://agriculture.ks.gov/divisions-programs/division-of-conservation/watershed-districts>

Formation of Watershed Districts – The Watershed District Act

https://agriculture.ks.gov/docs/default-source/statutes-conservation/watershed-district-act.pdf?sfvrsn=656086a3_8

Watershed Dam Construction Program rules and regulations K.A.R. 11-3-1 to 11-3-12.

Funding available through Kansas Department of Agriculture-Division of Conservation for Watershed Dam Construction and/or repairs. The Watershed District Act, K.S.A. 24-1201 et seq. and the Watershed Dam Construction Program rules and regulations K.A.R. 11-3-1 to 11-3-12 provide guidance for the administration of state cost-share funding.

https://agriculture.ks.gov/docs/default-source/statutes-conservation/watershed-dam-construction-program-k-a-r-.pdf?sfvrsn=f95d3cdb_6

Kansas Department of Agriculture - Division of Water Resources

Terry Medley, P.E.

1320 Research Park Drive

Manhattan, Kansas 66502

785-564-6650 voice

785-564-6779 fax

Email: kda.waterstructures@ks.gov

Kansas Dam Safety Program

<https://agriculture.ks.gov/divisions-programs/dwr/dam-safety>

Dam Safety Resources

<https://agriculture.ks.gov/divisions-programs/dwr/dam-safety/dam-safety-resources>

Dam Safety Permit Requirements

<https://agriculture.ks.gov/divisions-programs/dwr/dam-safety/permit-requirements>

Contact for the NRCS Watershed Program:

Natural Resources Conservation Service
Roger Masenthin, Water Resources Planning Specialist
760 South Broadway
Salina, Kansas 67401
(785) 823-4500

<https://www.nrcs.usda.gov/wps/portal/nrcs/site/ks/home/>

Watershed Rehabilitation Program in Kansas

https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_032493.pdf

<https://www.nrcs.usda.gov/wps/portal/nrcs/main/ks/programs/planning/wpfp/>

The Watershed Protection and Flood Prevention Act (PL 83-566)

<https://www.nrcs.usda.gov/wps/portal/nrcs/main/ks/programs/planning/wpfp/>

Kansas Watershed Projects Map https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_030537.pdf

Status of Kansas Watershed Projects

https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_032013.pdf

Information obtained from:

Kansas Department of Agriculture-Division of Conservation, Watershed Dam Construction Program

Kansas Department of Agriculture-Division of Water Resources

USDA Natural Resources Conservation Service

Butler County Watershed Districts/Butler County Conservation District

Information compiled Sandy Koontz, Butler County Conservation District, assisted by Hakim Saadi, May 2019