WATER MANAGEMENT
FOR SOUTHWEST
KANSAS

GMD3

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HB 2686 Opponent Testimony
Provided To The House Water Committee
February 15, 2022

Chairman Highland, Members of the House Water Committee, My name is Mark Rude, and I am Executive Director of the Southwest Kansas Groundwater Management District No. 3 (GMD3). Thank you for this opportunity to provide comments on HB 2686. In the extremely brief time available to consider HB 2686, GMD3 can see sweeping changes that adversely affect the purposes of the Kansas GMD Act. The bill erodes local assistance to state water officials in meeting their duties and attention to legislative purposes for groundwater management policy.

I will focus my comments for now on some concerns that directly affect GMD3 members. HB 2686 flips government to a centralized top-down expansion of state groundwater governance while acting to shrink, to confine and to dilute local water user funds, representation, and expertise available to advise and assist state water officials. This is not good water policy for Kansas. HB 2686 betrays the 50 Year Kansas Water Vision principle that "locally driven solutions have the best chance of providing long term solutions to water problems." It does this by expanding state water official authority while taking stakeholder appeal rights and imposing local leader term limits that legislators will not accept on themselves. HB 2686 imposes millions of dollars of new property right tax on rural areas to create a new state agency fund rather than local trusts, while removing property owners from GMD governance and participation. Our experience - a local GMD water trust fund can serve public purposes efficiently. See GMD3 legislative report on WWCP Fund attachment for reference.

HB 2686 eliminates geographically distributed county and use category board positions of GMD3 that exist to represent the entire GMD area more fairly. Confined animal feeding operations are a major economic driver in Southwest Kansas. HB 2686 takes their GMD3 director position away in an arbitrary reduction of board size from 15 down to a maximum of 9, while elsewhere in HB 2686 a local watershed board is allowed up to 15 board positions. The bill further departs from local control afforded other instrumentalities by creating a nomination process for GMD boards with unfilled board positions and requiring an outside state water planner to appoint local leaders.

We look forward to working with the committee and partners for good Kansas water policy. Thank you for this opportunity, and I'll stand for questions at the appropriate time.

2022 REPORT TO THE KANSAS LEGISLATURE

Western Water Conservation Projects Fund

2021 activities and topics

Water

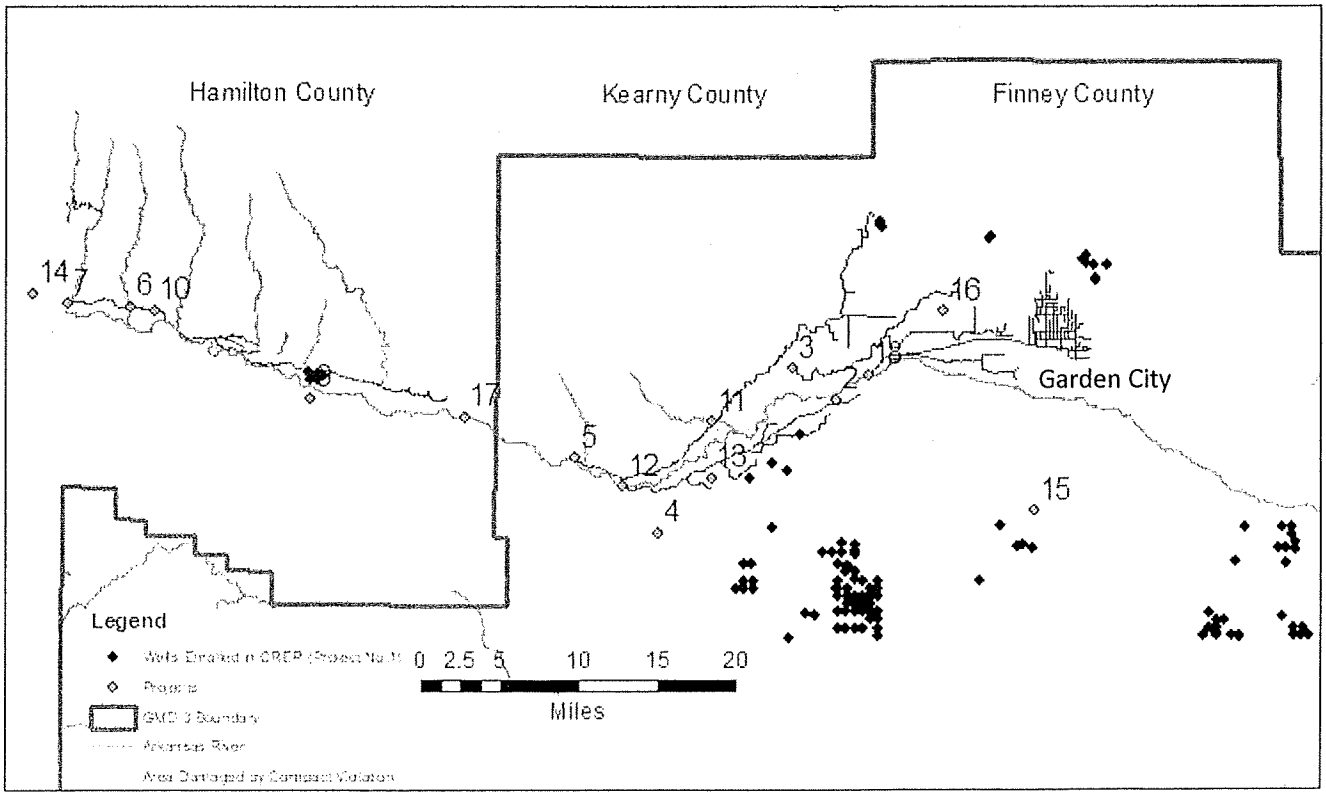
from

Southwest Kansas Groundwater Management District 3(GMD3)

Session 2008 SB 534 proviso & Kansas Water Office
Contract Number 08-0129

Financial Statement for 2021. The GMD3 Western Water Conservation Projects (WWCP) Fund began year 2021 with $971,901 and ended the year with $370,557.46. There were expenditures totaling $901,227.85 and income of $299,884.30. Expenditures included a 3% fiduciary services charge of $41,627.49 paid to the GMD3 general fund. Expenditures in 2021 were leveraged to support the Kansas Conservation Reserve Enhancement Program (CREP) state obligations and an additional $300,000 Reclamation WaterSMART conservation grant to improve the Farmers Ditch water diversion efficiencies. Audit financial statements available upon request.

A model for financing local water management studies and projects for the affected area of the Upper Arkansas River basin that receives water from Colorado. Numbers on the map below correspond to the projects list enclosed. This activity returns a fraction of the cash damage award from KS v. CO and helps target other funds to the area as a model approach to investing back in local legendary leadership for Kansas water.



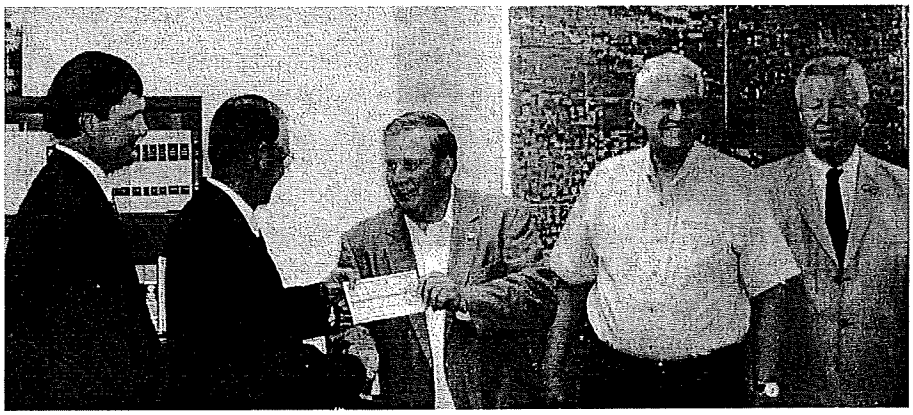
Background

50 Year Kansas Water Vision – "locally driven solutions have the best chance of providing long term solutions to water problems."

As a result of litigation filed in the United States Supreme Court (*Kansas v. Colorado, No. 105 Original*), the State of Kansas received more than $34.7 million in damage award from the State of Colorado for actual Kansas losses to crops and fields in Southwest Kansas, including interest. Quantified from effects on this Kansas area The cash damages from the litigation first paid back the state $20 million litigation cost, with 1/3 of the remainder going to the Kansas Water Plan used to form the Kansas CREP, and 2/3 to the actual affected area in southwest Kansas in the form of the Water Conservation Projects Fund.

Projects funded in whole or in part by the Fund must be in the area directly impacted by the Arkansas River Compact past violations and meet eligibility requirements and goals in K.S.A. 82a-1803 and the 2008 Senate Bill 534 proviso. For more than a century, local stakeholders have identified job one to be protecting the renewable water supply shared in the basin with the neighbors in Colorado. From the guiding principles in the 50 Year Kansas Water Vision, locally driven solutions have the best chance of providing long term solutions to water problems. Legislative leadership has relied on local leadership by providing an innovative collaborative model for protecting public funds and efficient completion of projects.

Legislature model for a locally managed water conservation fund.



The 1996 legislature passed law to direct management of anticipated water funds from Colorado. The 2008 Kansas Legislature looked to the institutional leadership of the GMD3 governing body, professional staff, and surface water stakeholders to assure a portion of the damage funds would be preserved to meet the needs of the area directly affected by prior compact violations. In doing this, the Legislature created an efficient way to accomplish legislative purposes in K.S.A. 82a-1803. This structure also allows the investment interest on the principal to accrue to those purposes under fiduciary care of GMD3.

Legislative goals for the GMD3 managed WWCP Fund:

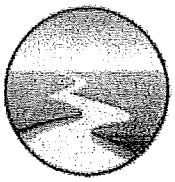
1. *Maximize general public good (public interest).*
2. *Maximize efficiency of call water for ditch irrigation.*
3. *Maximize benefits of high river flows to improve recharge.*
4. *Mitigate water quality problems in surface and groundwater.*
5. *Reduce consumptive use of water to help stabilize the system.*
6. *Improve the stability of the hydrologic system for irrigators.*
7. *Address compact compliance.*

GMD3 Management Program and the GMD3 WWCP Fund.

The GMD3 draft revised Management Program presents the nature of water supply problems in Southwest Kansas and the local thinking for policy and behavior adopted to address them. As a program, that document discusses relationships and interdependent roles of GMD3 and state and federal partners. GMD3 continues to do its part to help keep Kansas strong – not because it can always find immediate solutions to the unmet water demands and supply challenges, but because it allows room for those discussions to occur with a locally elected board and adopted management program. In that space, with good intention and honest dialogue, it is possible to find workable solutions that better meet our collective needs and better serve Kansas. GMD3 has six focus activities: 1) Water Rights Assistance; 2) Water Conservation; 3) Models and development; 4) Water Quality Protection; 5)Ark River Management; and 6) Outreach and advocacy. This management program and board governance activities provide an ideal space to entrust dedicated state water project funds to meet legislative goals, pursue productive partnerships, and ensure efficient expenditures. The action of the legislature to move the GMD3 WWCP Fund to local care underwrites local legendary leadership for the vital goals of wise public funding for water management.

local legendary leadership for the vital goals of wise public funding for water projects and management

The Shared Ark River Basin Water Supply.



The Arkansas (Ark) River in both Colorado and Kansas has been over-appropriated for many decades, with the exception of the rare very high flood flows and reservoir spill events. The question of flood flow apportionment is one issue that remains unresolved. The market for water rights along the front range in Colorado can reach $85,000 per acre-foot and nearly 500 time the Kansas market for municipal and industrial water. Greater use and storage efficiencies upstream and declining quality of deliveries into Kansas further threaten Kansas supply. Arkansas River flow entering Kansas brings high levels of contaminates, including sulfate and salinity. For example, nearly 10 tons of uranium has been delivered into Kansas annually in recent years. See KGS Report available HERE. Reservoir construction and storage improvements in Colorado have dramatically increased water use efficiencies and lowered water quality and inflows to Kansas over time. River flows into southwestern Kansas are highly dependent on available upstream storage which is rarely sufficient to meet the senior water right irrigation demands of the Associated Ditches of Kansas and district needs for aquifer recharge. The Kansas farmer owners of senior river water rights have been using and protecting surface water nearly 150 years, providing a basis for equitable apportionment under the 1949 Compact agreement with Colorado. Kansas irrigation ditch companies call for water under their federal court decreed rights, vested water rights and state Compact administration to put water to immediate beneficial use in Hamilton, Kearny, and Finney counties. Most of the lands irrigated from the river also have groundwater wells that supply irrigation water through conjunctive use management. The constant aquifer recharge from river flow ties all area water use to Ark River flows from Colorado.

Funding for interstate study is Priority One for local leadership in the Advisory Committee and GMD3 Board. Knowing the importance of managing renewable interstate water supplies,

assuring resources and conducting the necessary studies to inform water supply protection activities is job one. We believe friendly interstate relations are promoted when Kansans can inform the interstate discussions and state efforts to protect Kansas water interests. Maintaining collaboration of local and state leaders is an effective tool of the WWCP Fund for Kansas.

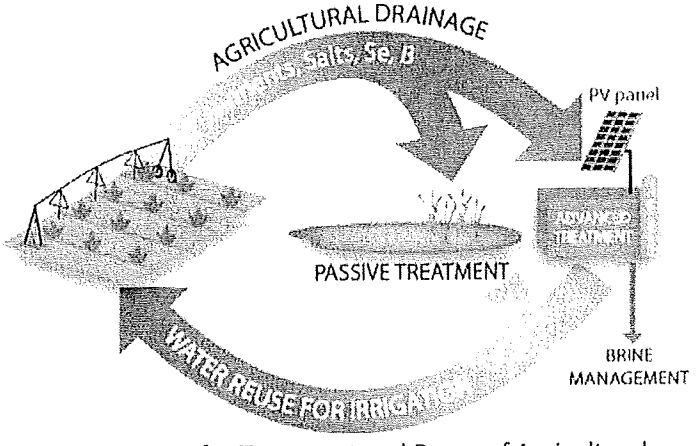
GMD3 requests that ARCA investigate water quality change.

Water quality (usability) of river flow is a significant problem and a growing concern in both member states of the Arkansas River Compact Administration (ARCA). As the largest reservoir in the state, the Ogallala/High Plains Aquifer in GMD3 receives tons of Uranium and other harmful dissolved solids carried in with river flow from Colorado. This daily occurrence is depleting Kansas groundwater usability. The resulting health concerns require similar funding attention to the funding of Harmful Algal Blooms or major point source pollution affecting other Kansas Reservoirs.

KDHE proposed at the Dec. 2021 ARCA meeting that work sessions between Colorado and Kansas should occur outside of ARCA, offering hope that measurable progress can be achieved for water users.

In the 1949 compact agreement administered by ARCA, Article IV-D express terms of the Compact prohibit future beneficial development which involve the improved or prolonged functioning of existing works and which materially deplete the waters of the Arkansas River in usable quantity or availability for use to water users in Kansas. Some may view Compact language as lacking reference to water quality and not enforceable, but the purposes and language of the compact are not so limiting. For example, the word "groundwater" does not appear in the compact, and yet it was a basis of the Supreme Court for determining damages. GMD3 requested of ARCA in 2020: *"Under the equal dignity of each state in questions of compact enforcement, we raise the question of Compact compliance and harm to basin water users for ARCA and member states to investigate the changes to 1949 water quality conditions and affects on Compact allocations."* All benefits and obligations of the pro - development and protection language of the Compact apply to all.

In the absence of water quality preservation steps, reuse efficiency improvements in Colorado lowers downstream water usability. Water usability metrics are needed for basin water system operations to aid in determining remedies for users in both states. Kansas cannot let Ark River water quality be kicked aside as a subordinate compliance matter in ARCA meetings and Colorado delivery system operations. The water quality question of harm to water useability must be investigated with constant attention where ever such discussion can be most productive in addressing the problem.



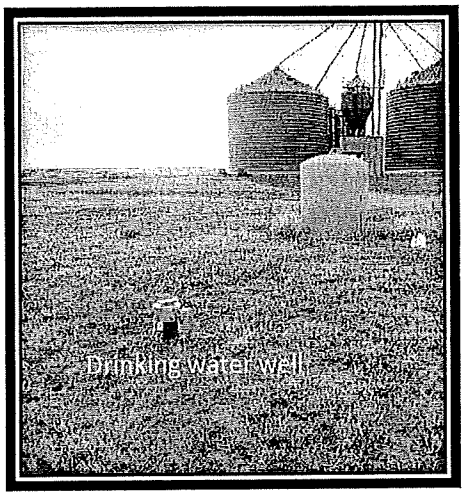
Opportunities for Treatment and Reuse of Agricultural Drainage in the United States | ACS ES&T Engineering

Declining water quality is a significant problem across all major irrigated agriculture areas of the world. The Arkansas basin is no exception. **GMD3 efforts to conduct a Basin Plan of Study**

(posted HERE) from John Martin Reservoir to Garden City in 2015 was supported by Reclamation but state staff in both states struggle to support the opportunity, or to develop the interstate tool like occurred in the Republic River Compact posted HERE. The 2019 Kansas legislative resolutions SR1729 and HR6018 were to communicate the need for more cooperation and funding assistance in completing planning for the entire basin, including needs in Kansas. This work is yet to occur. KDHE proposed at the 2021 ARCA meeting that work sessions between Colorado and Kansas occur outside of ARCA, offering hope that measurable progress can be achieved for water users.

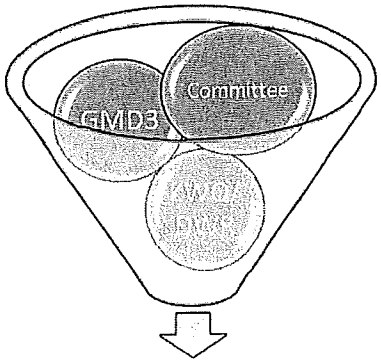
SW Kansas water mineralization study assistance (ongoing).

In response to 2019 legislative SR1729 and HR6018, the KDHE embarked in 2020 on a domestic water well project and two-year study, in partnership with the KWO, KDA, and KGS. This project builds on prior KGS study to provide some focus on analyzing the impacts of uranium and other minerals on water used for human consumption from private water wells in the GMD3 WWCP Fund area and elsewhere along the Arkansas River. In 2020, homeowners were invited to provide voluntary water well samples, using sample equipment provided by KDHE and distributed through local project hubs, including county health departments. The KGS is evaluating the results as part of the longer-term study and sampling assistance by GMD3 into 2021. See: https://www.kdheks.gov/mineralization/index.htm



WWCP Fund Advisory Committee (Committee)

The WWCP Committee is chaired by Randy Hayzlett, who represents the South Side Ditch Association during committee meetings. Chairman Hayzlett also serves on the GMD3 Board, Vise Chair of ARCA, and the Kansas Water Authority (KWA). The committee is comprised of representatives from the six irrigation ditch companies in the area, supported by GMD3 staff and state staff. Meetings are open and minutes are posted.



Local Water Projects

Committee members and the organizations they represent have given significant time and attention to interstate river supply concerns for over 100 years. A preliminary list of projects that fit the requirements of K.S.A. 82a-1803 was developed by this stakeholder work group in 2006, working from a GMD3 "Upper Arkansas River Conservation Projects Reconnaissance Study" completed in 2005. These priorities resulted in three feasibility studies initiated in 2006 by the KWO using damage funds. A basis for moving the funds to local care was formed the following year and the Kansas Legislature passed a budget proviso in 2008 moving the remaining damage funds to GMD3 fiduciary care subject to a KWO grant agreement that preserved some state supervision and assured a role for surface water ditch company leaders.

Dates of Advisory Committee meetings in 2021

Committee meetings are open and generally conducted at the GMD3 office in Garden City, with those attending either in person or by remote zoom meeting. Three meetings occurred on March 24th, June 2nd, and October 22nd. All Committee and GMD3 Board minutes are available at https://www.gmd3.org/about/meeting-agendas-minutes/ .

Advisory Committee Members

Name *Voting	Representing	Address	Telephone/Email
*Randy Hayzlett **Chairman**	South Side Ditch Association (also Kansas Rep. on ARCA, GMD3 Board, and Water Authority.	1112 Road T Lakin, KS 67860	(620) 355-7499 Home (620) 271-4008 Cell hayzlett@pld.com
*Troy Dumler **Vice-Chairman**	Great Eastern Ditch Association (also Kansas Rep. on ARCA)	P.O. Box 597 Garden City, KS 67846	(620) 276-3246 Office (620) 640-2339 Cell troy.dumler@sbcglobal.net
*Doug Mai	Finney CO Water Users Association (Farmers Ditch)	14550 N VFW RD Garden City, KS 67846	(620) 260-6354 Cell swkscornfarmer@gmail.com
*Shane Knoll	Garden City Ditch Company	2245 N Little Lowe Garden City, KS 67846	(620) 260-5707 Cell shane_knoll@hotmail.com
*Hal Scheuerman	Kearny County Farmers Irrigation Association (Amazon Ditch) (also on GMD3 Board and past Kansas Rep. on ARCA)	P.O. Box 222 Deerfield, KS 67838	(620) 260-6540 Cell (620) 426-6073 Home schrman@pld.com
* Stanley Hines	Frontier Ditch Company	P.O. Box 147 Coolidge, KS 67836	(620) 372-8251 Shop (620) 372-2636 Fax
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Michael Meyer	Water Commissioner, KDA/DWR	4532 Jones Ave., Garden City, KS 67846	(620) 276-2901 Office mike.meyer@ks.gov
Kevin Salter	Interstate Water Engineer, KDA/DWR	4532 Jones Ave., Garden City, KS 67846	(620) 276-2901 Office (620) 276-9315 Fax kevin.salter@ks.gov

Projects and area support since 2008.

(Numbers correspond with project numbers on front map)

1) Kansas CREP - state match from GMD3 WWCP Fund and District activity.

The 2007 Kansas Legislature authorized the Kansas Conservation Reserve Enhancement Program (CREP) using part of the money Kansas received from Colorado as repayment of quantified

damages to southwest Kansas. The portion dedicated to the State Water Plan Fund was leveraged with local, state, and federal resources under CREP to provide voluntary cash incentives to transition irrigated land to dry land grass and to permanently retire groundwater water rights. Most of the cash damage funds committed to the CREP was later swept to other Kansas legislative funding priorities. But the legislature has continued to provide funding. The program benefits are locally viewed as a cost-effective way to mitigate the missing 400,000 acre-feet lost to compact violations by Colorado. Local retirement of groundwater rights help offset those effects while encouraging land use transition in highly erodible soils.

The amount of in-kind costs which GMD3 expended in the CREP area: $121,261.17.
Activities to promote proper water management and conservation in the CREP area included:

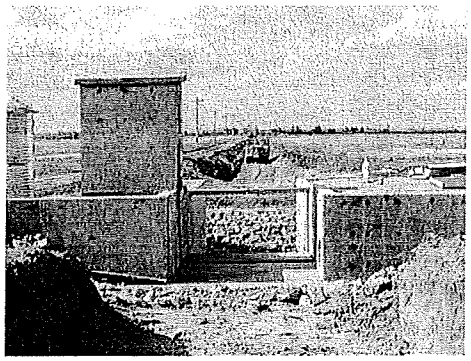
a. Water flowmeter use and maintenance inspections.
b. Direct assistance to stakeholders on water rights and water conservation.
c. Advice and assistance on how the CREP can work to enhance water conservation benefits and the purposes of the Kansas CREP.

Western Water Conservation Project Fund Cash Contribution to CREP goals:

October 2020 through September 2021.

Proposed Project	Cash for Surface Water Efficiency	Cash for Aquifer Recharge	In-kind Cost
WWCPF Farmers Ditch Headgate	$1,764750.82		$2600
Reclamation WaterSMART Grant	($298,285)		
WWCPF Reimbursement to GMD3 in-kind for fiduciary and fund operations.		$.00	$53,238.74
Totals from WWCPF for report period	$1,572,988.52	$0.00	$55,838.74

The KDA/ Division of Conservation annually provides a full CREP report:
http://agriculture.ks.gov/divisions-programs/division-of-conservation/water-conservation-programs



2) South Side Ditch Phase 1 (Initial project construction completed, 2011)

a) Southern Alternative Delivery System - ditch capacity restoration.
b) Efficiency improvement in key areas.
c) New return canal & measurement to the river (2012).

3) Lake McKinney Improvements (2011)

a) Restoring Lake McKinney capacity and storage efficiency, update outflow structures.
b) Alternate bypass canal around Lake McKinney saves delivery water.

4) Arkansas River Recharge storage evaluations (ongoing)

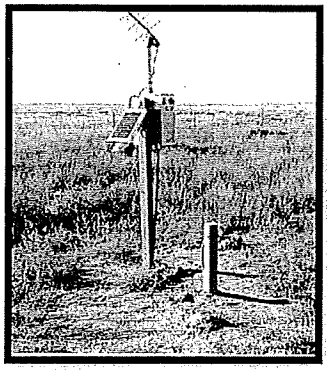
a) GMD3 new water storage supply study, 2004
b) GMD3 options reviewed, Arkansas River Reconnaissance study completed 2005.
c) Recharge elements in the System Optimization Review, 2014.
d) Future technical memos to update prior reservoir sites for water importation (considered).

5) Amazon Headgate Improvement Project (Construction completed 2012)

a) Replacement of headgate to improve diversion efficiency.
b) Rotary gates provided by Amazon Ditch as contributing partner.

6) Frontier Ditch West Bridge Creek Flume (use efficiency)

a) Evaluation (2011)
b) Construction (Completed, 2012



7) Upper Arkansas basin gage and data collection.

a) The GMD3 WWCP Fund provided interim funding for important river system gages lost from state agency budget cuts. GMD3 sought and received permanent dedicated funding the Legislature in **K.S.A. 74-5,133 - Arkansas river gaging fund** (2012).
b) Equip South Side return to river gaging station (completed, 2012)
c) Identify and equip upper basin Stateline groundwater gage sites.
   i) In 2013, data needs resulting from new post compact irrigation development in Colorado south of Holly near Stateline.
   ii) Groundwater gages established by GMD3 and partners in 2014 with O & M funding from 2015 SB156 amending K.S.A.74-5,133).

8) System Optimization Review, Kearny and Finney Co.

a) GMD3 assistance came from a $112,000 Reclamation WaterSMART grant (2012, completed 2014). The $223,250 project budget focused on elements for improving efficiency and operations of the Ark River delivery system in GMD3 Posted HERE.

9) GMD3 Improving Drinking Water alternatives (2014).

a) "Upper Arkansas River Basin Public Water Supply Alternatives Viability Analysis" posted HERE.
b) KGS & KSU crop samples to investigate uranium contamination posted HERE.

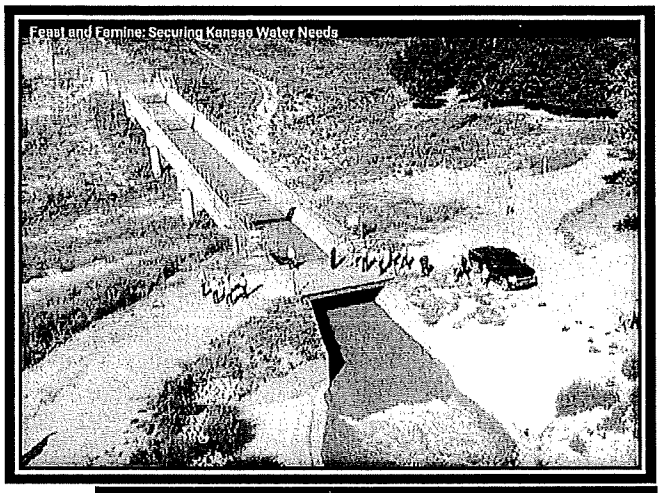
10) Frontier Ditch Return Gage (Completed, 2015)

Gage was replaced with assistance from US Geological Survey with O&M through a continual USGS-KDA agreement implementing K.S.A.74-5,133 to accurately measure return flow to the Arkansas River from the Frontier Ditch.

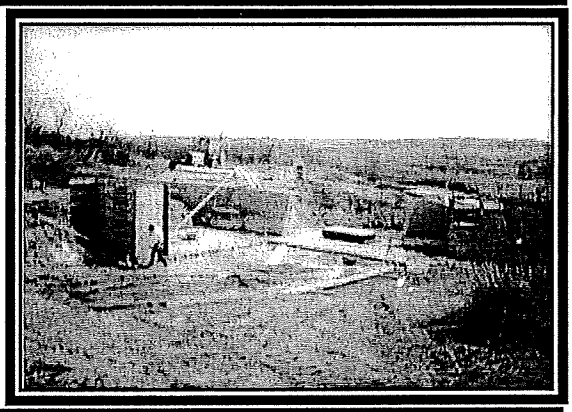
11) Amazon Canal Sand Creek Flume (at Lakin Golf Course)

a) **Evaluation** (Completed 2015).
b) **Demolition and reconstruction** (Completed, 2016)

At Right, Replaced the old wood and steel Amazon Ditch Flume over Sand Creek with an engineered and efficient permanent structure that supplies both the Amazon Ditch system and the Great Eastern irrigation ditch system that includes Lake McKinney.



12) South Side Ditch Headgate Improvement. (completed 1996, paid 2016)



State required repairs to the headgate and river control structure in 1996 to improve function and efficiency. The state committed to reimburse costs if damage funds became available from KS vs. CO. Costs were submitted and reimbursed in 2016.

13) South Side Ditch Phase 2 (2020).

Check gate structure construction, S. S. Ditch.

Evaluate and replace 14 water control structures along the ditch. In combining several, South Side eliminated need for two structures, saving project dollars. Also, reusing engineering for one structure saved engineering costs. Work began in 2016 and concrete work on most structures has been ongoing. The improvements allow for more efficient delivery of surface water and provide the ability to consider head stabilization ponds so surface water can be run through center pivot irrigation systems and river water can be co-mingled with groundwater to improve low river water quality. The total budget for Phase 2 is $1,400,000. A total of $464,841.61 was spent on the project in 2017 and $316,046.45 in 2018, $377,042 in 2019 and $50,852 in 2020.

14) Interstate operations review (ongoing)

Colorado "Super Ditch" Concerns

a) **Preferred Interstate Supply Assessment.**
   i) Began in 2012 compiling all institutional agreements and court rulings that govern interstate operations.
   ii) Assisted state staff in funding a review of the Colorado so-called **"Super Ditch"** pilot project conducted by Spronk Water Engineers. Now operated in Colorado as alternative water transfers (ATMs).
   iii) Funding support for LiDAR cost share with Kearny and Grant Counties for public use and to evaluate aquifer recharge.

b) **Colorado Lower Arkansas Water Management Association (LAWMA) - Sufficiency of Colorado post compact water use replacement.**

LAWMA Operating Concerns.

In 2015, The KDA/DWR was short on interstate water management funds and requested $75,000 of the GMD3 WWCP Fund for technical analysis and consulting work related to the effects that the Colorado LAWMA decree operations have on Kansas water supplies. In 2017, this budget was extended to $95,000 from the GMD3 WWCP Fund. Good analysis informs interstate working relationships.

c) **Colorado Arkansas basin winter water storage and reservoir operations.**

Winter Storage Operating Concerns

Significant new development of storage space in the basin after the Compact agreement has allowed storing irrigation water that could have otherwise been diverted to fields by irrigation entities during the winter months. This stored water may then be released later for irrigation use or made available for other uses. Kansas water users maintain basin winter storage operation concerns. Colorado participants in the basin Winter Water Storage Program (WWSP) store their WWSP water primarily in Pueblo Reservoir, but also use Lake Henry and Lake Meredith under the Colorado Canal system, Holbrook and Dye Reservoirs under the Holbrook System, Adobe and Horse Creek Reservoirs under the Fort Lyon System, Great Plains Reservoirs under the Amity System and in John Martin Reservoir.

Colorado seeks more storage... Kansas users seek funding to develop the metrics needed to guide Kansas interstate water quality talks.

15) GMD3 WWCP Fund support for the Willis Water Tech Farm (Completed, 2017)

At right, Field day at the Willis Water Technology Farm. As aquifer supplies and well yields decline in southwest Finney County, water conservation and utilization strategies are shared with interested attendees

16) Roth/Garden City Company Tech Farm water quality use study.

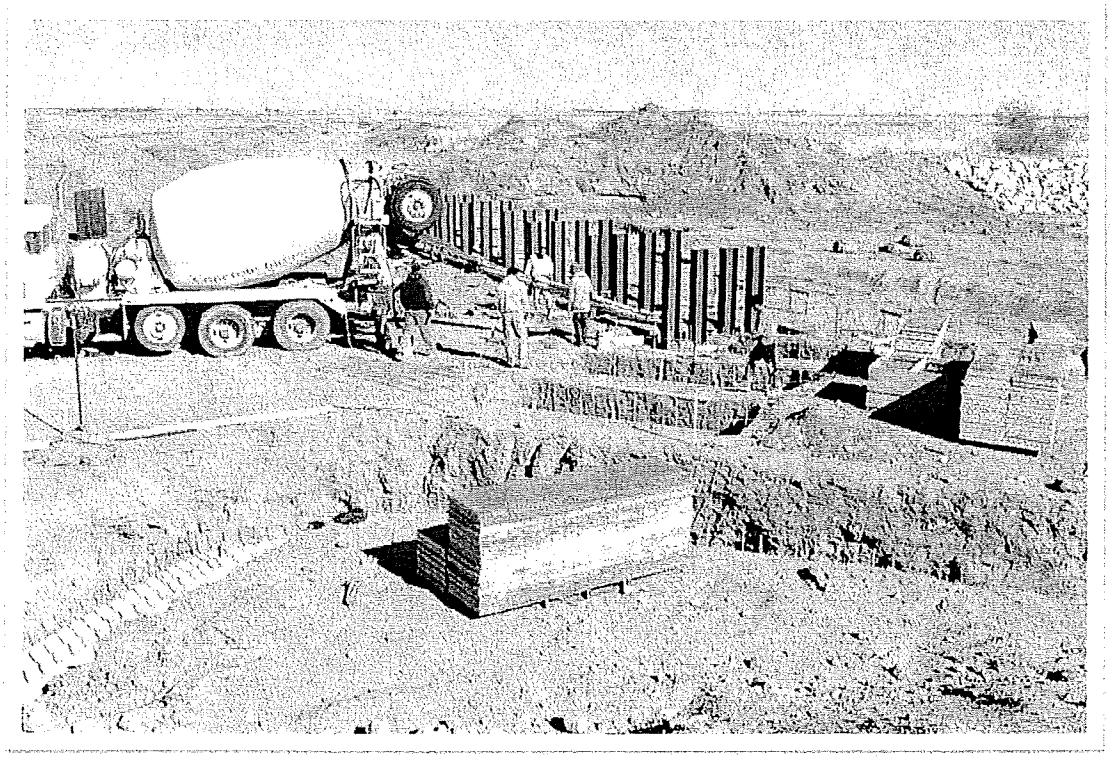
Both river and aquifer sources are harmed by very low water quality from Colorado. **At right**, 2017 KSU trial of PAM soil conditioner and river water drip irrigation Proof-of-Concept preliminary work indicated dryland corn out performed corn irrigated with river water due to poor quality river water and timely rains. In 2019, a six-zone more permanent and complex SDI set-up now installed on the same location. Netafim and Garden City Co are now involved for further study.

17) Muskingum River Routing Method - Modeled Water Deliveries

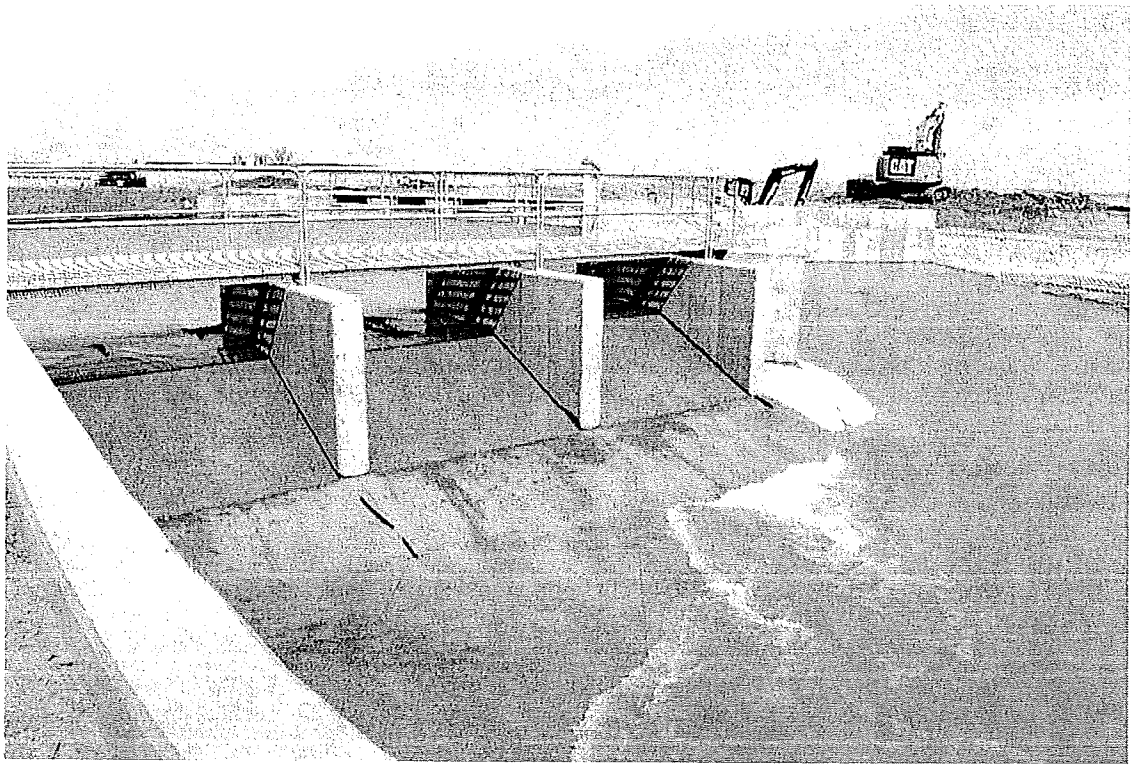
The Muskingum River routing method is one of several factors used to credit the Stateline delivery of Kansas Account releases from John Martin Reservoir. $37,482.92 was spent in 2017 to develop the model for the river reach from Stateline to the farmers/Garden City Ditches headgate. Some project overruns occurred between the engineering and legal expenses, and $17,517.08 was paid in 2018, for a total project expense of $55,000.

18) Replacement of the Farmers Ditch Headgate (Completed 2021)

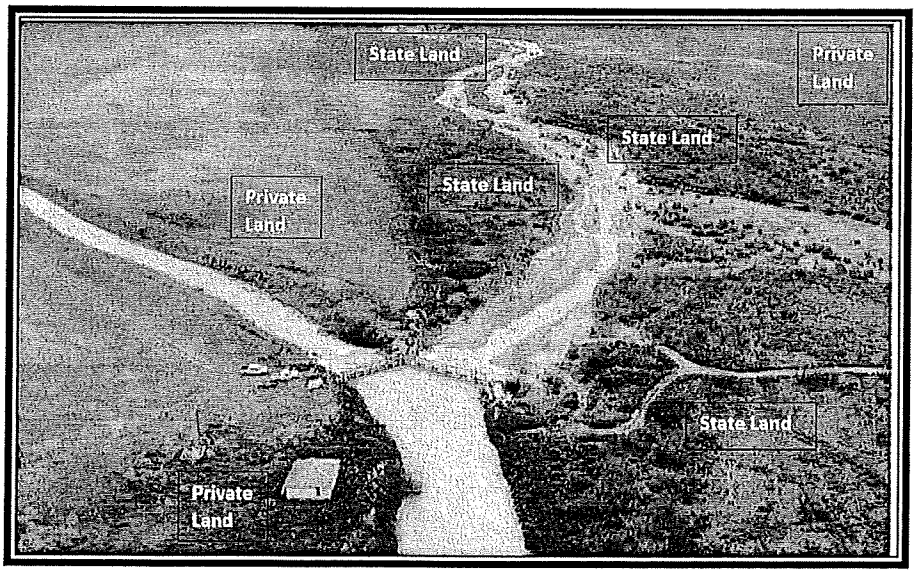
- Needed a more water efficient and technology friendly water control system.
- Lack of River administrative boundaries for Kansas owned land were problematic.
- Leveraged WWCP Fund expenditures for a $300,000 Reclamation WaterSMART grant.



Above, Farmers Ditch headgates construction (January 2021) Steel piers and cement footings are being set for new Ark River flow control structure at old site for river diversions to the Farmers and Garden City Ditch Associations.



The Farmers Ditch has a water right of 20,000 acre-feet, which can be distributed over 10,000 irrigated acres. The Garden City Ditch shares the headgate and some portion of canal with the Farmers Ditch and has a water right of 4,000 acre-feet. Available water and average diversions are much less than the 24,000 acre-feet authorized. The average quantity of water diverted over the past 10 years was 4,692 acre-feet.



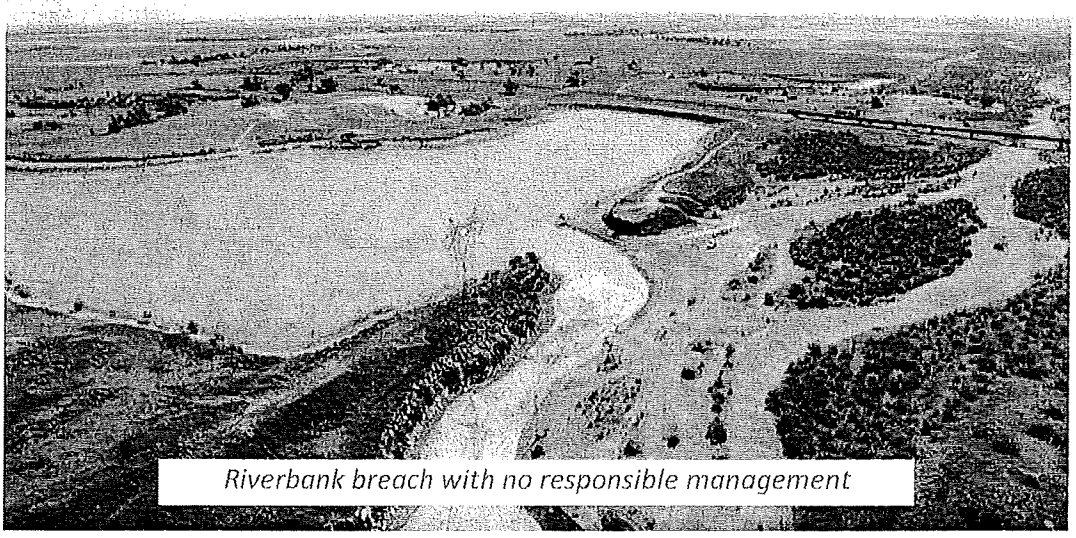
Above: Arkansas River area on the east side of Kearny County at the Farmers Ditch river control structures. Property line questioning between state and private land boundaries complicated construction design engineering. GMD3 worked with the Secretary of State (SOS) to resolve boundary concerns, allowing a more affordable project.

River boundaries and the GMD3 management program.

As a navigable river, the bed of the Arkansas River from the Colorado state line to the Oklahoma state line is property of the state. The extent of the riverbed extends to the ordinary high-water mark at the time of statehood. Over time, due to accretion, avulsion, floods, natural and man-made changes to the landscape, and the over-utilization of water supplies in Colorado and Southwest Kansas, it has become difficult to determine property lines. As illustrated in the property line dispute associated with the Farmers Ditch headgate improvement project, the problem is further compounded by non-uniform descriptions on deeds, different taxing practices among counties, the use of state-owned land by private and public parties and lack of a single state agency being appointed authority to actively manage riverbeds. This all leads to confusion about property lines and use practices that hinder the orderly development of both state and private property, including development and use of water rights on state property. GMD3 acknowledges that all parties would be well served by the establishment of a uniform method for determining the ordinary high-water mark at the time of statehood and that following a compatible administrative boundary determination system would allow for cooperative and comprehensive planning and the development of the beneficial use of state-owned natural infrastructure by neighboring landowners and other GMD3 partners. Under our Management Program, GMD3 is committed to providing resource assistance to other state and local government partners to address this issue in a cooperative and comprehensive manner.

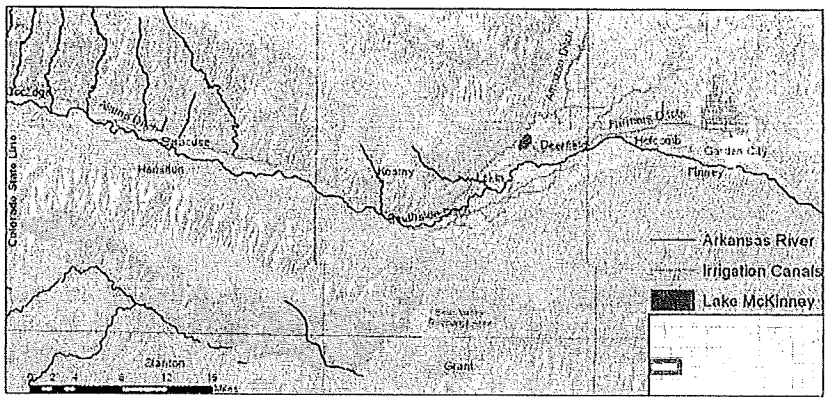
Arkansas Riverbank Breach in Finney County.

The Kansas legislature has not delegated to any local or state agency the duty to supervise state owned land along the historic bed and banks of the Arkansas River. In 2000, high river flows created a breach in the bank of the river, diverting stream flows into an adjacent sand pit. It is a diversion without a water right. The breach is approximately 200 ft long and the pit now collects 100% of river flow until it is full. In some years, the pit never fills, and river flows cease at the breach as inflows match losses to the aquifer. This disrupts the distribution of aquifer recharge benefits along the intensive groundwater use control area. Restoring the river flows downstream of the breach would extend the flow of the river and restore an important source of recharge to many groundwater users with depleting well capacity near the river channel. GMD3 is currently seeking federal and other funding to address this problem. Drone footage posted HERE.



Riverbank breach with no responsible management

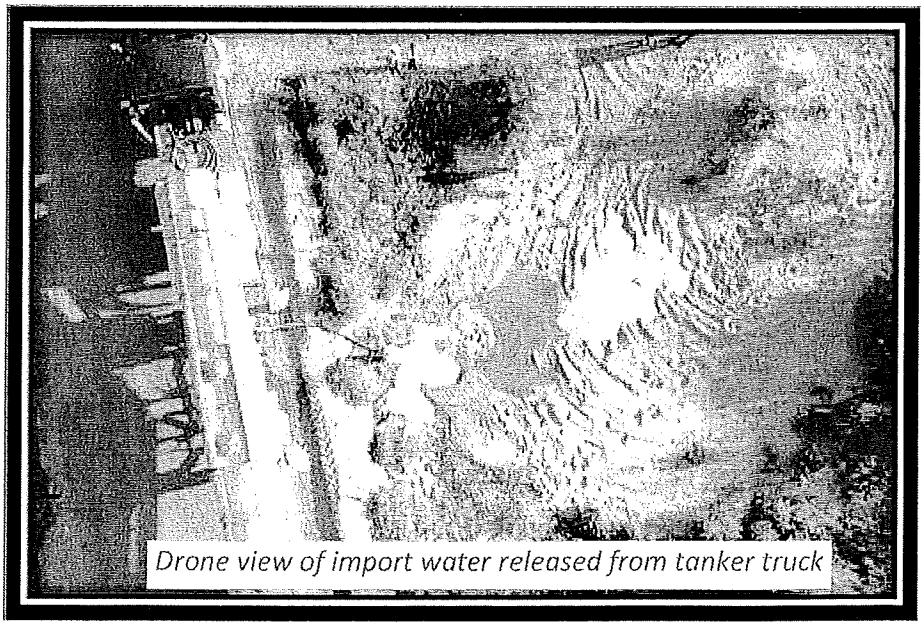
Upper Ark River Watershed Group. GMD3 participated in Upper Ark River Water Quality Tours in 2005 hosted by K-State research and Extension and supported the Watershed Restoration And Protection Strategy (WRAPS) activity that followed. GMD3 will continue to provide leadership in further development and protection of the natural water infrastructure of the Ark River consistent with the GMD Act, respecting local member and WWCP Fund advisors and advice of an Arkansas River Watershed group being formed in support of the GMD3 Ark River Management activities.



A multi-year WaterSMART grant was awarded to GMD3

A multi-year federal Reclamation WaterSMART grant was awarded to GMD3 in 2021 to fulfill this activity of the Management Program. Efforts will be made to consider the Colorado Lower Ark Watershed Plan available HERE in the work of this Kansas group. An NRCS rapid assessment report for the Colorado portion of the HUC is available HERE.

GMD3 Water Import Projects.


Drone view of import water released from tanker truck

An in-state water transfer Proof-of-Concept (POC) project was conducted by GMD3 to the area to demonstrate importing fresh water from the Missouri River to the Ark River/Ogallala High Plains Aquifer system. Other interstate water transfer POC projects are planned in 2022 in partnership with water districts in other states. The next step is a term permit for use in multiple states pending chief engineer approval. Additional source water could mitigate poor quality local supply and provide many other benefits for partners.

Next step is pending chief engineer approval

Water Vision. The Kansas Water Vision has action steps identified to grow watershed yields to Kansas water storage to meet Kansas water needs. The 2015 Colorado Water Plan targets both new storage and agricultural alternative transfer mechanisms (ATM's) designed to preserve irrigated agriculture-based communities while providing additional supply to meet front range water markets. Both activities will require significant economic evaluation with an eye to irrigated agriculture-based communities. Securing new source water transfers is key to reaching the stars and a bright future for Kansas. Action steps are provided annually by GMD3 to the KWO/KWA to advise and assistance them in considering development of a favorable Kansas water transfer policy that will help dry rivers flow, mitigate floods, meet unmet demands, fill empty storage spaces, and manage poor-quality native water across Kansas. See: http://www.gmd3.org/wp-content/uploads/2021/01/GMD3-SWP-funds-budget-requests-2021-version-1.pdf The GMD3 water Vision is to have partner water communities of practice reach across their barriers and think outside their box to fully consider local management program needs in state and federal water administration, planning and funding. See *Feast And Famine: Securing Kansas Water Needs* at: https://www.youtube.com/watch?v=o7MK143jAMY&t=1506s

Financial Statements. The 2021 financial statements of the GMD3 general fund, WWCP Fund and other special GMD3 funds were audited in January 2022 by Lewis, Hooper, and Dick, LLC, Certified Public Accountants, and available upon request. Contact: Mark Rude, text or call: (620) 272-3001 or mrude@gmd3.org.

Thank you. *Special recognition is given in appreciation of special partners: the Kansas legislature for water wisdom in moving targeted water funding to local management; to the volunteers of the local ARLFA Committee of local surface water leaders who work with GMD3 and advisors for cooperation in achieving good projects; and to the unwavering support of the Kansas Water Office; the Kansas Department of Ag's Divisions of Water Resources and Conservation; KDHE Bureau of Water; K-State Research and Extension; the Kansas Geological Survey; and the US Departments of the Interior and Agriculture.*

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