

# GMD2 ANNUAL REPORT 2024

[equusbeds@gmd2.org](mailto:equusbeds@gmd2.org)  
[tboese@gmd2.org](mailto:tboese@gmd2.org)  
[www.gmd2.org](http://www.gmd2.org)

316-835-2224  
313 Spruce Street  
Halstead, Kansas 67056



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# 2024 FINANCES

## Income

<b>EQUUS BEDS GROUNDWATER MANAGEMENT DISTRICT #2</b>					
<b>Unaudited Income</b>					
<b>January through December 2024</b>					
					<b>Jan - Dec 2024</b>
				<b>Income</b>	
				<b>400 - Revenue</b>	
				<b>401 - County Land / Water Assessments</b>	\$629,988.00
				<b>409 - Water Meter Sales</b>	\$6,393.35
				<b>415 - Interest Earned</b>	\$61,424.68
				<b>421 - Reimbursements &amp; Other</b>	\$30,088.60
				<b>Total 400 - Revenue</b>	<b>\$727,894.63</b>
				<b>Total Income</b>	<b>\$727,894.63</b>

## Expenditures

<b>EQUUS BEDS GROUNDWATER MANAGEMENT DISTRICT #2</b>	
<b>Unaudited Expenditures</b>	
<b>January through December 2024</b>	
	<b>Jan - Dec 2024</b>
<b>Expense</b>	
<b>500 · Personnel Expenditures</b>	
<b>501 + Salaries</b>	\$309,338.84
<b>504 · Payroll Tax Expense</b>	\$22,830.19
<b>505 · Health Insurance Benefits</b>	\$46,441.14
<b>509 · Employee Retirement</b>	\$31,738.11
<b>Total 500 · Personnel Expenditures</b>	<b>\$410,348.28</b>
<b>600 · Transportation Expenditures</b>	
<b>601 · Fuel</b>	\$4,088.46
<b>602 · Mileage Reimbursement</b>	\$0.00
<b>603 · Travel Meals</b>	\$607.42
<b>604 · Travel Lodging</b>	\$991.89
<b>605 · Vehicle Insurance and Fees</b>	\$1,958.75
<b>607 · Vehicle Maintenance</b>	\$2,020.18
<b>Total 600 · Transportation Expenditures</b>	<b>\$9,666.70</b>
<b>700 · Administrative Expenditures</b>	
<b>701 · Office Maintenance</b>	\$3,545.59
<b>702 · Utilities</b>	\$3,282.13
<b>703 · Office Supplies</b>	\$3,222.70
<b>704 · Office Equipment &amp; Maintenance</b>	\$31.38
<b>705 · Publications</b>	\$1,129.31
<b>706 · Printing</b>	\$1,224.31
<b>707 · Memberships &amp; Conference Fees</b>	\$2,899.66
<b>708 · Insurance - Office</b>	\$6,840.00
<b>710 · Insurance - Prof Liability</b>	\$1,185.00
<b>711 · Legal Fees</b>	\$10,718.50
<b>712 · Other Professional Fees</b>	\$31,335.00
<b>713 · Postage</b>	\$2,104.13
<b>714 · Miscellaneous</b>	\$151.70
<b>715 · Digital Imaging System</b>	\$1,627.81
<b>716 · KS Unemployment</b>	\$106.94
<b>717 · Insurance - Workers Comp</b>	\$2,111.00
<b>718 · Computer</b>	\$8,016.32
<b>719 · Telephone Service</b>	\$5,867.81
<b>Total 700 · Administrative Expenditures</b>	<b>\$85,399.29</b>
<b>800 · District Project Expenditures</b>	
<b>804 · Water Quality Monitoring</b>	\$5,078.76
<b>808 · Water Meter Service</b>	\$21,442.21
<b>809 · Water Meter Purchases</b>	\$5,113.12
<b>811 · Groundwater Level Monitoring</b>	\$48.17
<b>813 · Abandoned / Inactive wells</b>	\$727.34
<b>814 · Automated Data Collection</b>	\$17,290.67
<b>Total 800 · District Project Expenditures</b>	<b>\$49,700.27</b>
<b>Total Expense</b>	<b>\$555,114.54</b>

## Assets

<b>EQUUS BEDS GROUNDWATER MANAGEMENT DISTRICT #2</b>					
<b>Unaudited Assets - Estimated Value</b>					
<b>As of December 31, 2024</b>					
				<b>Assets</b>	
				Office Building and Contents	\$150,000.00
				2021 Ford F-150	\$24,000.00
				Weather Stations (7)	\$35,000.00
				Field Equipment	\$10,000.00
				<b>Total Assets</b>	<b>\$219,000.00</b>

## Audit

The 2024 financial audit is currently being conducted by the district's independent auditor and will not be finalized and available until February/March 2024. The 2023 audit is included as Attachment A.

# 2025 ADOPTED BUDGET

The 2025 Adopted Budget and corresponding Financial Statement are provided below.

## Equus Beds Groundwater Management District No. 2 Adopted FY 2025 Budget

		ADOPTED FY 2024	ADOPTED FY 2025
<b>CODE</b>	<b>DESCRIPTION</b>		
<b>500</b>	<b>Salaries and Benefits</b>		
501+	Salaries	\$305,271	\$317,194
504	Social Security/Medicare	\$23,353	\$24,265
505	Health Insurance	\$35,000	\$45,000
506	Employment Withholding Taxes	\$0	\$0
509	Employee Retirement	\$33,580	\$34,891
511	Educational Assistance	\$0	\$5,000
	<b>Subtotal</b>	<b>\$397,204</b>	<b>\$426,350</b>
<b>600</b>	<b>Transportation</b>		
601	Fuel	\$5,000	\$6,000
602	Mileage and Toll fees	\$1,000	\$1,000
603	Meals	\$1,000	\$1,000
604	Lodging	\$4,000	\$8,000
605	Vehicle Insurance & Fees	\$3,000	\$3,000
606	Vehicle Appropriation	\$0	\$0
607	Vehicle Maintenance	\$1,500	\$1,500
	<b>Subtotal</b>	<b>\$15,500</b>	<b>\$20,500</b>
<b>700</b>	<b>Administration</b>		
701	Office Maintenance	\$20,000	\$15,000
702	Utilities	\$4,000	\$4,000
703	Office Supplies	\$4,500	\$4,000
704	Office Equipment & Maint.	\$500	\$1,000
705	Publications	\$1,500	\$1,500
706	Printing	\$10,000	\$10,000
707	Membership & Conferences	\$5,000	\$10,000
708	Insurance - Office	\$7,500	\$8,000
710	Insurance - Prof. Liability	\$1,500	\$1,500
711	Legal Services	\$100,000	\$50,000
712	Professional Services	\$75,000	\$75,000
713	Postage	\$4,000	\$4,000
714	Miscellaneous	\$1,000	\$1,000
715	Digital Imaging System	\$6,000	\$4,000
716	Insurance - Unemployment	\$1,000	\$1,000
717	Insurance - Worker's Comp.	\$1,500	\$1,500
718	Computer	\$10,000	\$20,000
719	Communication Service	\$5,000	\$5,000
720	Laboratory	\$100	\$100
722	Budgeted Reserve	\$30,000	\$30,000
	<b>Subtotal</b>	<b>\$288,100</b>	<b>\$246,600</b>
<b>800</b>	<b>Projects &amp; Programs</b>		
804	Water Quality Monitoring	\$10,000	\$10,000
806	Recharge/Alternate Source	\$0	\$0
808	Water Meter Service	\$30,000	\$40,000
809	Water Meter Sales	\$15,000	\$15,000
810	Groundwater Cleanup	\$0	\$0
811	Water Level Monitoring	\$1,000	\$1,000
812	Information and Education	\$500	\$500
813	Abandoned / Inactive Wells	\$1,000	\$1,000
814	Automated Data Collection	\$20,000	\$20,000
815	ASR Project (Grant Funds)	\$30,000	\$30,000
816	District Modeling	\$10,000	\$10,000
	<b>Subtotal</b>	<b>\$117,500</b>	<b>\$127,500</b>
	<b>TOTAL</b>	<b>\$818,304</b>	<b>\$820,950</b>

**Equus Beds Groundwater Management District No. 2  
Adopted FY 2025 Financial Statement**

	<i>FY 2024</i>	<i>FY 2025</i>
	<i>Adopted (1)</i>	<i>Adopted (1)</i>
Fund Balance JAN 1	<b>\$633,211</b>	<b>\$779,259</b>
Fund Balance Actual		
<b>REVENUES</b>		
Assessments	\$634,200	\$605,658
Interest	\$3,000	\$25,000
Grant	\$0	\$0
Reimbursements	\$45,000	\$55,000
Carry-over Funds	\$136,104	\$135,292
Encumbrance	\$0	\$0
REVENUE TOTAL	\$818,304	\$820,950
FUND TOTAL	\$1,315,411	\$1,464,917
Fund Total PROJECTED		
<b>EXPENDITURES</b>		
Salaries and Benefits	\$397,204	\$426,350
Transportation	\$15,500	\$20,500
Administration	\$288,100	\$246,600
Projects	\$117,500	\$127,500
Grant	\$0	\$0
TOTAL	\$818,304	\$820,950
Fund Balance DEC 31	<b>\$497,107</b>	<b>\$643,967</b>
Fund Balance Projected		
<b>ASSESSMENT BASE</b>		
Land (acres)	875,550	873,760
Water (af)	369,014	351,231
<b>ASSESSMENT RATE</b>		
Land (per acre)	\$0.05	\$0.05
Water (per af)	\$1.60	\$1.60

(1) Estimated fund balance and land and water assessment bases

# ACTIVITIES

## Description of Activities

GMD2 tracks groundwater management and protection activities, as well as customer service requests and activities. Major activities include (number of activities/requests in 2024 indicated):

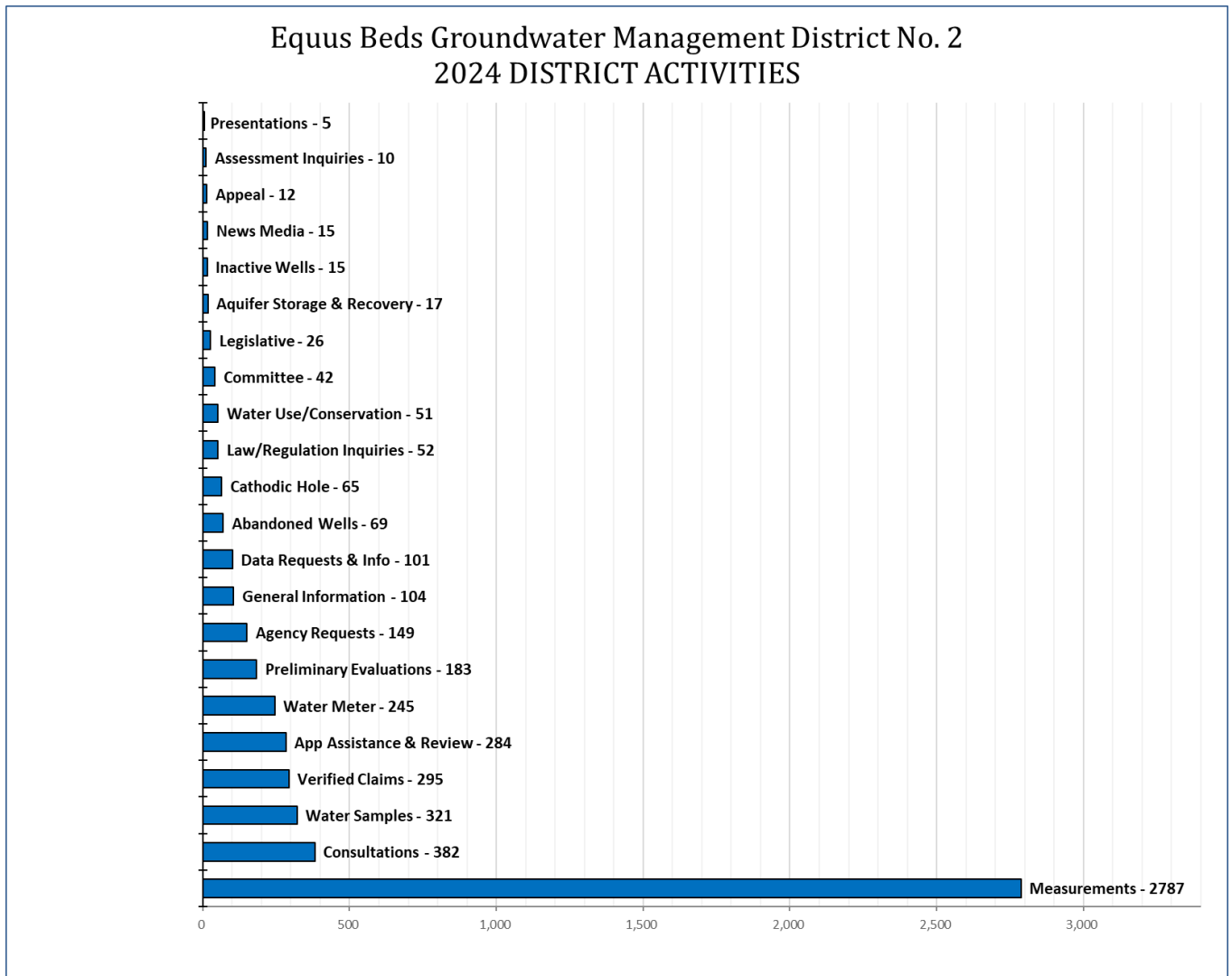
- Data collection
  - Water Level Measurements: 2,787
  - Water Quality Samples Collected: 321
- Water permit consultations: 382
- Safe yield evaluations: 183
- Permit application assistance and review: 284
- Water meters, including inspection, repairs, and sales: 245
- Abandoned well inspections and plugging assistance: 69
- Inactive well inspections: 15
- Cathodic protection borehole permitting and inspections: 65
- Information and education: 371

Major highlights in 2024 include:

- Sampling the monitoring and permitted well network in the oil-field brine contaminated areas (~300 wells).
- Partnering with KGS to review and evaluate the GMD2 historical water quality data for trends.
- Establishing Priority Areas of Concern.
- Working on implementing the High Plains Aquifer Regional Conservation Partnership Program (RCPP).
- Working on updating the GMD2 Management Program.
- Assisted water right owners during extreme drought to avoid over-pumping or file Multi-Year Flex Account (MYFA) applications.



A graph showing many of the GMD2 activities in 2024 is below.



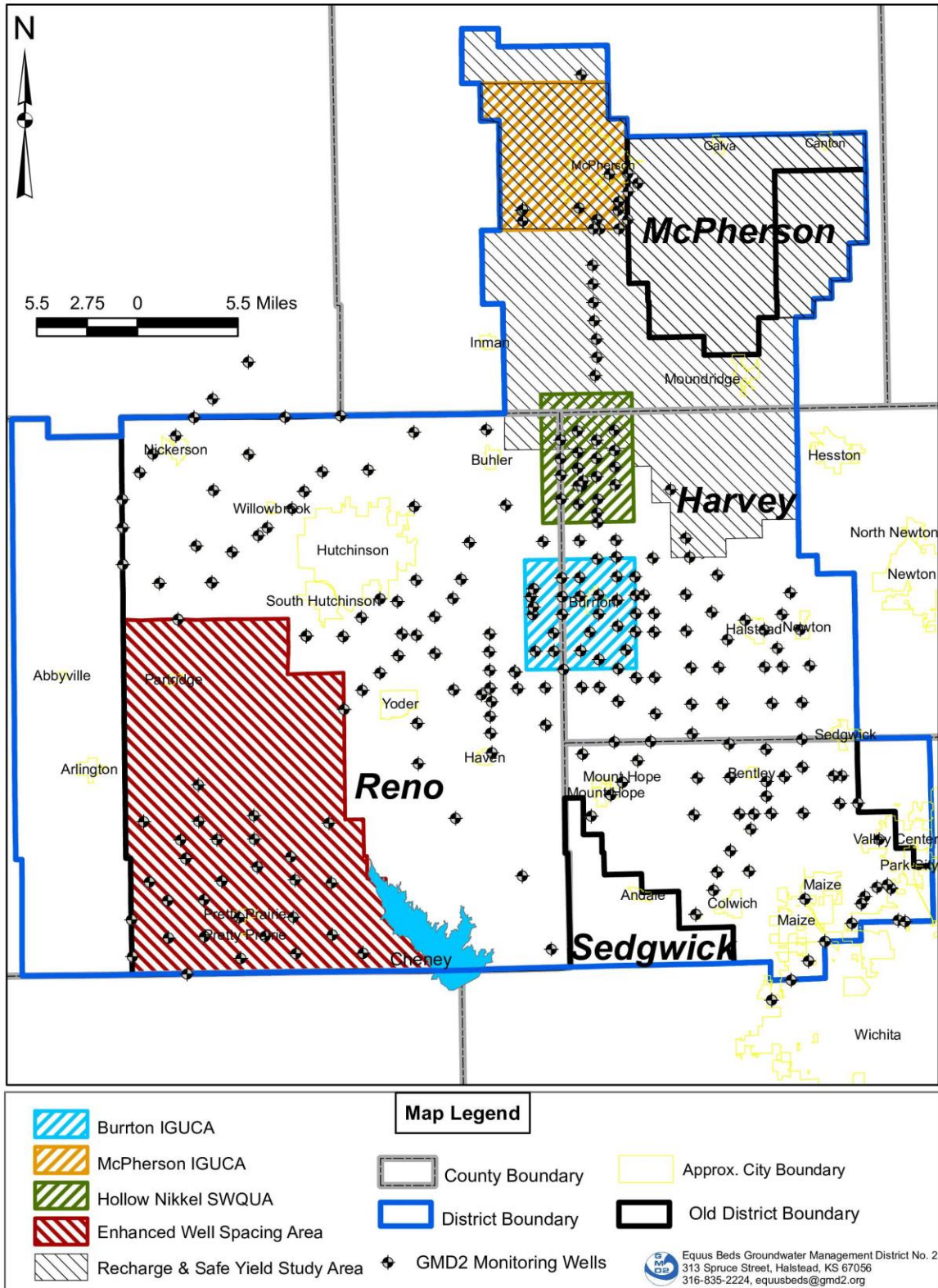
## How Expenditures Conserve and Reduce Consumptive Use of Water

GMD2 has been proactive and remains active in establishing regulations, programs, and special management areas to properly manage the Equus Beds Aquifer. The district was one of the first areas in the state to establish safe yield criteria in 1980 for reviewing new water permit applications. Additionally, at the request of the GMD2 Board, the McPherson Intensive Groundwater Control Area (IGUCA) was established in 1980 to address declining groundwater levels in a portion of McPherson County. Two water quality areas were also established in the 1980s to deal with oil field saltwater contamination – the Burrton IGUCA and the Hollow-Nikkel Special Water Quality Use Area. More recently, a special management area was also established in a portion of Reno County to reduce impairment risks by requiring new non-domestic wells to be spaced farther away from existing wells, and later the safe yield calculation recharge rates were reduced to help ensure the area was not over-appropriated. The only active aquifer recharge project in Kansas is located in GMD2. In 2024, GMD2 continued actively reviewing and managing the established special management areas and identified and established Priority Areas of Concern, which included new and previously established areas.

Recent studies by the Kansas Geological Survey, including the “2023 Status of the High Plains Aquifer in Kansas” (Technical Series 25 – November 2023) indicates that groundwater use in GMD2 is at or near sustainable levels, with some areas, such as a portion of McPherson County, showing slight groundwater level declines. GMD2 has an extensive monitoring well network and conducts approximately 3,000 water-level measurements per year (2,787 in 2024). The data is used to evaluate water level changes and trends. Data collection and review is ongoing to determine if any additional special management areas are needed or if additional corrective control provisions are needed in any of the established areas. GMD2, in partnership with the other four GMDs, the Kansas Department of Agriculture - Division of Conservation, and the Kansas Water Office are in the process of implementing the High Plains Aquifer RCPP to reduce irrigation water use where needed to conserve the High Plains Aquifer. The district’s 2024 expenditures all relate to proper management of the aquifer, including conservation and reduced consumptive use where needed.

Map Showing GMD2 Special Management Areas & Monitoring Wells

Equus Beds Groundwater Management District No. 2  
Special Management Areas



## **Prevention of Economic Deterioration & Stabilization of Agriculture**

The Equus Beds Aquifer is the sole source of fresh and usable groundwater for industrial, municipal, and irrigation uses throughout South Central Kansas. Over 2,000 permitted water wells and points of diversion withdraw an average of approximately 177,077 acre-feet (57.7 billion gallons) of groundwater from the aquifer annually.

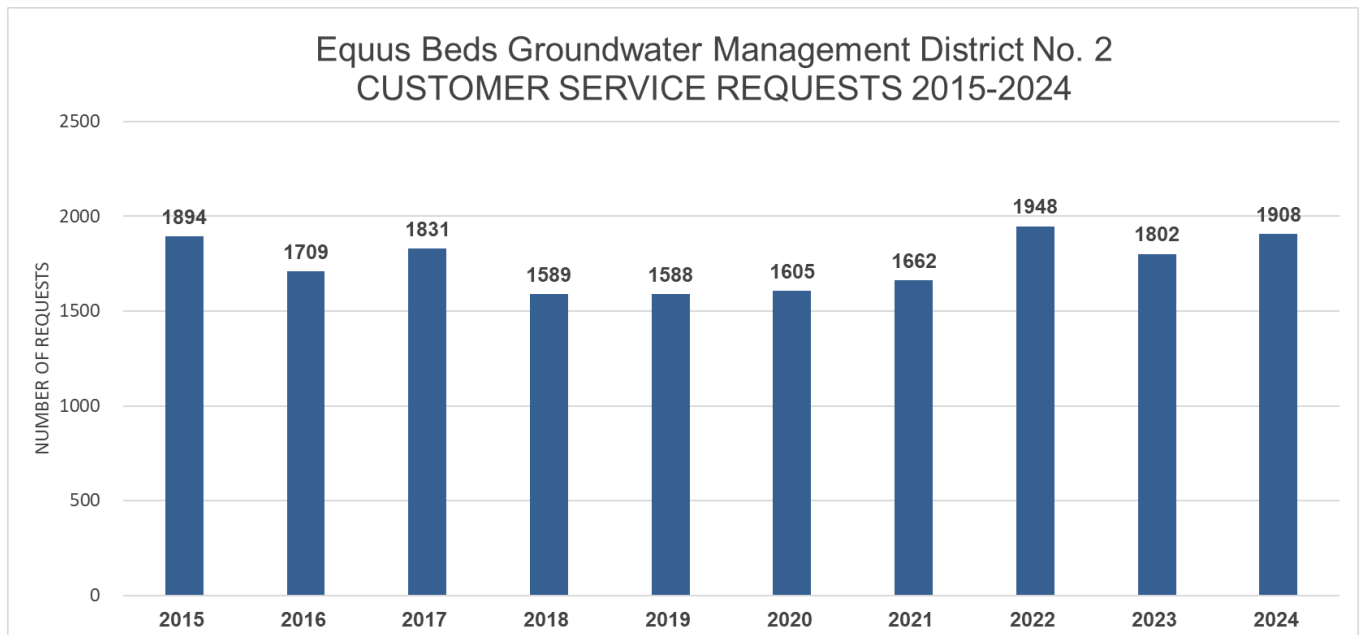
Over 550,000 people, or approximately 20 percent of the entire state's population, in Harvey, Sedgwick, McPherson and Reno counties rely on the aquifer for drinking water and other daily needs. Additionally, over 100,000 acres are irrigated using groundwater from the Equus Beds aquifer. The aquifer also supplies water for the area's livestock production, businesses, industries, and recreational activities. To manage and protect this valuable water resource from depletion and contamination, GMD2 was created in 1975 by local people representing municipal, agricultural, industrial, and domestic water users. An aquifer management program was developed and adopted by the GMD2 Board of Directors. The GMD2 boundaries were expanded in 1988, and again in 2017. GMD2 limits new groundwater withdrawals or diversions to annual recharge and seeks to maintain the natural water quality of the aquifer through protection and remediation.

To prevent economic deterioration and assist in the stabilization of agriculture in the GMD2 area, a sustainable supply of clean, useable groundwater is of utmost importance. GMD2 has several established on-going programs to accomplish the district's goal of maintaining the aquifer's quantity and quality. These include the special management areas described above, an extensive monitoring well network to measure groundwater levels and monitor water quality, an abandoned well program to ensure wells are properly plugged, an inactive well program to ensure inactive wells are properly constructed and sealed, and a water meter program that includes inspections, installation technical assistance, repairs, and sales to ensure groundwater withdrawals are accurately measured and reported.

## Other Activities from Management Program

A major function of the district is to provide information, education, and assistance to the district's water users, the public, and local, state, and federal agencies. Although not directly discussed, but mentioned in previous sections of this report, the district's customer service and information/education programs touch all the district's groundwater management and protection programs. Additionally, the district actively administers water rights, including assistance and review of water permit applications and water right consultations. Through information, education, assistance, and water rights administration and consultation, the district assists water users and others in maintaining the aquifer's quantity and quality.

Customer service requests for 2015 - 2024 are shown below.



# ACTION PLAN

## Summary and Background

In 2023, the Kansas Legislature passed HB 2279 into law. A portion of that bill became K.S.A. 82a-1044, requiring all Kansas Groundwater Management Districts to identify priority areas of concern within their boundaries by July 1, 2024, and then to develop action plans that reasonably address those concerns by July 1, 2026. Pursuant to HB 2279, there are already two established Priority Areas of Concern in GMD2 - The McPherson IGUCA and the Burrton IGUCA. Additionally, the Chief Engineer has determined that the Equus Beds Hollow-Nikkel SWQUA is also an established Priority Area of Concern. GMD2 has reviewed available water quality and water-level data, including reports and data from the Kansas Geological Survey (KGS) and the Division of Water Resources (DWR), to identify existing and new priority areas of concern in GMD2, which are shown in Figure 1 and summarized below. These areas were submitted and accepted by the Chief Engineer in 2024 pursuant to K.S.A. 82a-1044. GMD2 will be developing action plans in 2025 to address the Priority Areas of Concern. Figures 2 through 5 are water-level change maps created by KGS and show water-level changes throughout the High Plains Aquifer, including the GMD2 area, through varying timeframes. Figure 6 shows the generalized location of many of the known groundwater contamination sites in GMD2.

## Priority Areas of Concern

### ***McPherson IGUCA and the Area Immediately South of the McPherson IGUCA***

The McPherson IGUCA encompasses a 56-square-mile area located in the extreme northern portion of GMD2 in McPherson County (Figure 1). The control area was established March 28, 1980, by the Chief Engineer, DWR, at the request of the Equus Beds Groundwater Management District No. 2 because of declining water levels in the Equus Beds aquifer. Groundwater development or withdrawal exceeded natural groundwater recharge, and groundwater mining resulted. Groundwater management actions established in the control area included:

- closing the area to further groundwater development, except for domestic use,
- dismissing all groundwater permit applications filed prior to the establishment of the control area, and
- requiring the installation of water meters on all water wells in the control area, except domestic wells.



Pursuant to K.A.R. 5-20-2, DWR, in cooperation with GMD2, reviewed the McPherson IGUCA and developed the McPherson IGUCA Review Report, which was admitted to the record of the hearing conducted by the Chief Engineer in October, 2016. The Chief Engineer issued the Findings and Conclusions from the McPherson IGUCA Review on February 26, 2020. DWR maintains a website that includes information about the McPherson IGUCA, which has can be accessed at the following link:

<https://www.agriculture.ks.gov/divisions-programs/division-of-water-resources/managing-kansas-water-resources/intensive-groundwater-use-control-areas/mcpherson-iguca>

The 2016 McPherson IGUCA Review Report and the 2020 Chief Engineer’s Findings and Conclusions from the McPherson IGUCA Review can both be found on the DWR website. The McPherson IGUGA Review Report noted groundwater declines occurring immediately south of the McPherson IGUCA and recommended that the boundaries of the IGUCA may need to be expanded to the south, especially in an area designated as Tier 1 in the report. Tier 1 is located directly south of the McPherson IGUCA as follows:

Township	Range	Section	County
20 South	3 West	15 through 22; 27 through 35	McPherson
20 South	4 West	13 through 16; 21 through 28; 33 through 36	McPherson

In addition to the McPherson IGUCA, the GMD2 Board of Directors on June 6, 2024, designated the Tier 1 area directly south of the McPherson IGUCA as a new Priority Area of Concern (Figure 1).

### ***Burrton IGUCA and the Area Immediately South and East of the Burrton IGUCA***

The Burrton Intensive Groundwater Use Control Area (IGUCA) encompasses a 36-square-mile area located in Western Harvey County and Eastern Reno County in GMD2 (Figure 1). The IGUCA was established June 1, 1984 (correction order issued July 28, 1984), by the Chief Engineer, DWR, at the request of GMD2 because of groundwater quality deterioration caused by chloride contamination (oil field brine) in the Burrton area. The order defined a control area, made thirteen recommendations from a task force report, and contained three main corrective control provisions:

1. That all applications to appropriate water or change a point of diversion within the IGUCA shall be reviewed on an individual basis using a computer model;

2. That the Board of Directors of GMD2 will annually review all hydrologic information in the IGUCA and may request a hearing on any matter related to the IGUCA; and
3. That water flow meters shall be installed on all groundwater wells, except domestic and temporary wells.

Additionally, at the request of GMD2, water permits approved after the establishment of the Burrton IGUCA contain conditions requiring that water samples be collected from the authorized point of diversion (well) and analyzed for chloride and conductivity on a biannual basis.

Pursuant to K.A.R. 5-20-2, DWR, in cooperation with GMD2, reviewed the Burrton IGUCA and developed the Burrton IGUCA Review Report, which was admitted to the record of the hearing conducted by the Chief Engineer in October, 2016. The Chief Engineer issued the Findings and Conclusions from the McPherson IGUCA Review on February 28, 2020. DWR maintains a website that includes information about the Burrton IGUCA, which has can be accessed at the following link:

<https://www.agriculture.ks.gov/divisions-programs/division-of-water-resources/managing-kansas-water-resources/intensive-groundwater-use-control-areas/burrton-iguca>

The 2016 Burrton IGUCA Report and the 2020 Chief Engineer’s Findings and Conclusions from the Burrton IGUCA Review can both be found on the DWR website. The Burrton IGUGA Review Report noted the continued movement of the chloride contamination to the east-southeast and recommended that the boundaries of the IGUCA may need to be expanded to the east and south as follows:

Township	Range	Section	County
23 South	3 West	23, 26, 35	Harvey
24 South	3 West	2, 11, 14 through 17	Harvey

In addition to the existing Burrton IGUCA, the GMD2 Board of Directors on June 6, 2024, designated the area directly East and South of the Burrton IGUCA as described above as a new Priority Area of Concern (Figure 1).

### ***Equus Beds Hollow-Nikkel Special Water Quality Use Area (SWQUA)***

The Equus Beds Hollow-Nikkel SWQUA encompasses a 35-square-mile area located in northwest Harvey County, south-central McPherson County, and northwest Reno County in the



District (Figure 1). The SWQUA was established September 17, 1986, by the Chief Engineer, DWR, at the request of GMD2 because of groundwater quality deterioration caused by chloride contamination (oil field brine) in the area. The SWQUA designation and provisions were codified by K.A.R. 5-3-27, effective September 22, 2000. The Equus Beds Hollow-Nikkel SWQUA contains similar provisions to the Burrton IGUCA corrective controls, specifically water permit applications reviewed on an individual basis and water meters installations requirements. Additionally, like the Burrton IGUCA, water permits approved after the establishment of the SWQUA contain conditions that water samples must be collected and analyzed for chloride and conductivity on a biannual basis.

The GMD2 Board of Directors on June 6, 2024, designated the Equus Beds Hollow-Nikkel SWQUA as an established Priority Area of Concern (Figure 1).

### ***Reno County Enhanced Well Spacing Area***

At the request of GMD2, the GMD2 Well Spacing Regulation K.A.R. 5-22-2 was modified in 2003 to designate an area of Reno County with a relatively thin aquifer saturated zone and require new non-domestic wells to be spaced farther away from existing non-domestic wells to reduce impairment risks. Due to continued groundwater permit development and a slight decline in groundwater levels trend, the GMD2 Safe Yield Regulation K.A.R. 5-22-7 was modified in 2016 and requires certain change in point of diversion applications to meet safe yield, and the safe yield calculation recharge rates were reduced to help ensure the area would not be over-appropriated. The area is described in K.A.R 5-22-2(d)(1) as follows:

<b>Township</b>	<b>Range</b>	<b>Section</b>	<b>County</b>
23 South	6 West	31, 32 and 33	Reno
23 South	7 West	31 through 36	Reno
24 South	6 West	4 through 9; and 13 through 36	Reno
24 South	7 West	1 through 36	Reno
25 South	5 West	30 and 31	Reno
25 South	6 West	1 through 36	Reno
25 South	7 West	1 through 36	Reno
26 South	5 West	6,7 and 8; 17 through 21; and 27 through 35	Reno
26 South	6 West	1 through 36	Reno
26 South	7 West	1 through 36	Reno

Due to slight groundwater levels decline trend and a thin aquifer saturated zone, the GMD2 Board of Directors on June 6, 2024, designated the Reno County Enhanced Well Spacing Area as a new Priority Area of Concern (Figure 1). GMD2 will continue to evaluate the area to determine if any further action is needed.

### ***Water Quality Priority Area(s) of Concern Being Determined***

Due to the relatively shallow groundwater throughout much of GMD2, the District is classified as a Sensitive Groundwater Area. There are many areas in GMD2 where the groundwater has been contaminated to varying degrees by various pollutants. Past oil field brine disposal practices resulted in numerous groundwater chloride contaminated areas, such as the Burrton IGUCA and Equus Beds Hollow-Nikkel SWQUA areas. Other oil field brine contaminated areas are being monitored and studied by GMD2 and KCC. Additionally, nitrate contamination has been found in groundwater in some areas of GMD2, including around the City of Pretty Prairie area. Past studies by GMD2 and KDHE have identified some of these areas, and monitoring wells have been installed and sampled. There are some smaller areas in GMD2 where the groundwater is contaminated with other pollutants, such as volatile organic compounds (VOCs). Figure 6 shows the generalized location of many of the known groundwater contamination sites in GMD2, but it should not be considered inclusive of all groundwater contamination sites in GMD2.

GMD2 is fortunate to have a comprehensive monitoring well network, with most monitoring wells having decades worth of water quality data. GMD2 also maintains a robust water quality database. In anticipation of HB 2279, GMD2 staff sampled 541 wells in 2023, including all the GMD2 owned monitoring wells, as well as numerous other monitoring and production wells. GMD2 and KGS have recently begun the process of KGS performing a geospatial/time series analysis on the GMD2 groundwater quality dataset, with the focus planned to be on chloride and nitrate levels in the groundwater.

Due to the numerous groundwater contamination areas in GMD2, and the ongoing GMD2/ KGS collaborative water quality data review project, the GMD2 Board of Directors on June 6, 2024, designated the entire GMD2 area as a new Priority Area of Concern. GMD2 will continue to evaluate the available water quality data to delineate the different contaminated areas to describe the levels and extent of contamination and determine if any further action is needed.

# Equus Beds Groundwater Management District No. 2 Established and New Priority Areas of Concern

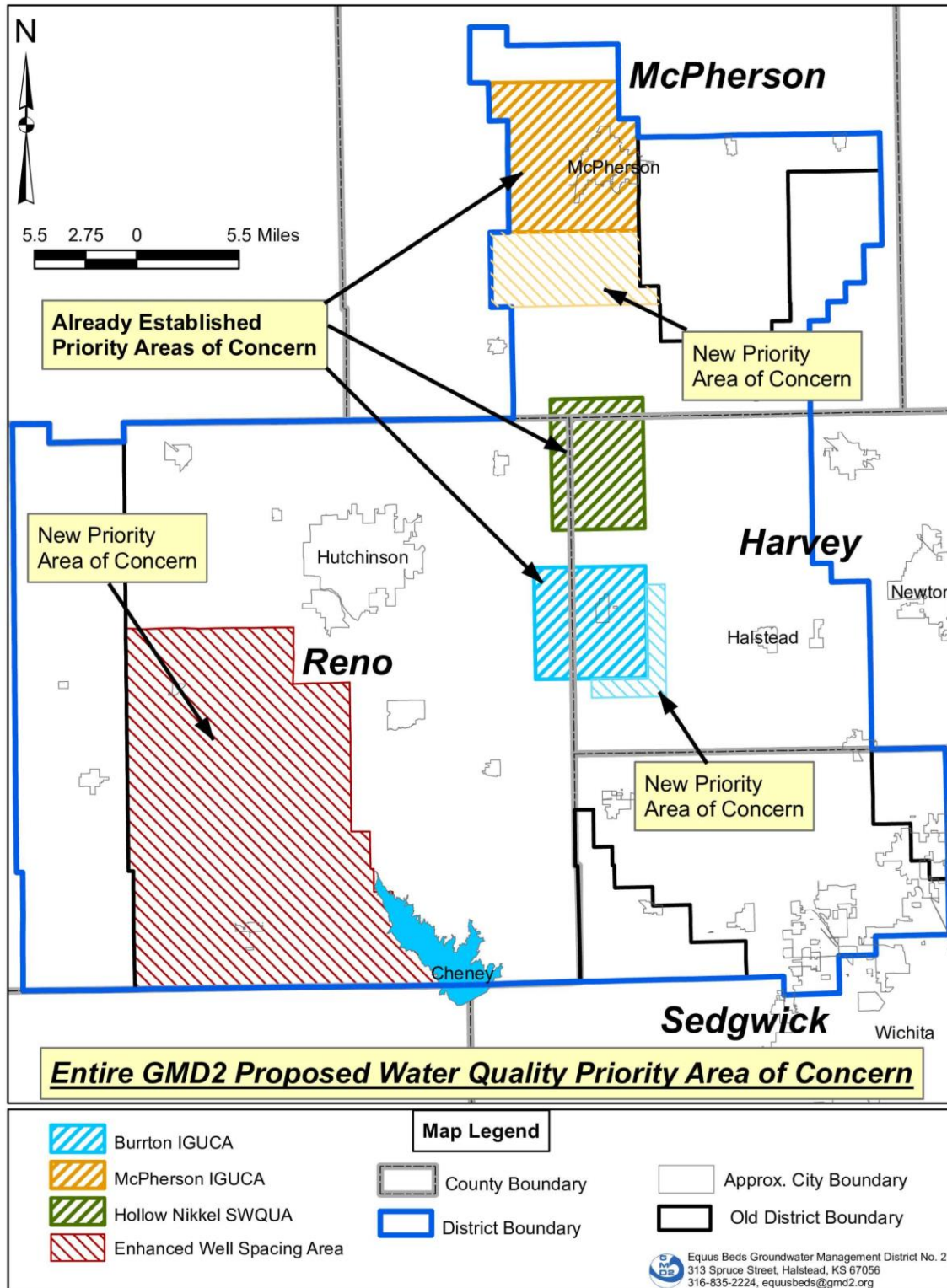


Figure - 1: GMD2 Priority Areas of Concern Map.



### Percent Change in Aquifer Thickness, Predevelopment to Average 2022-2024, Kansas High Plains Aquifer

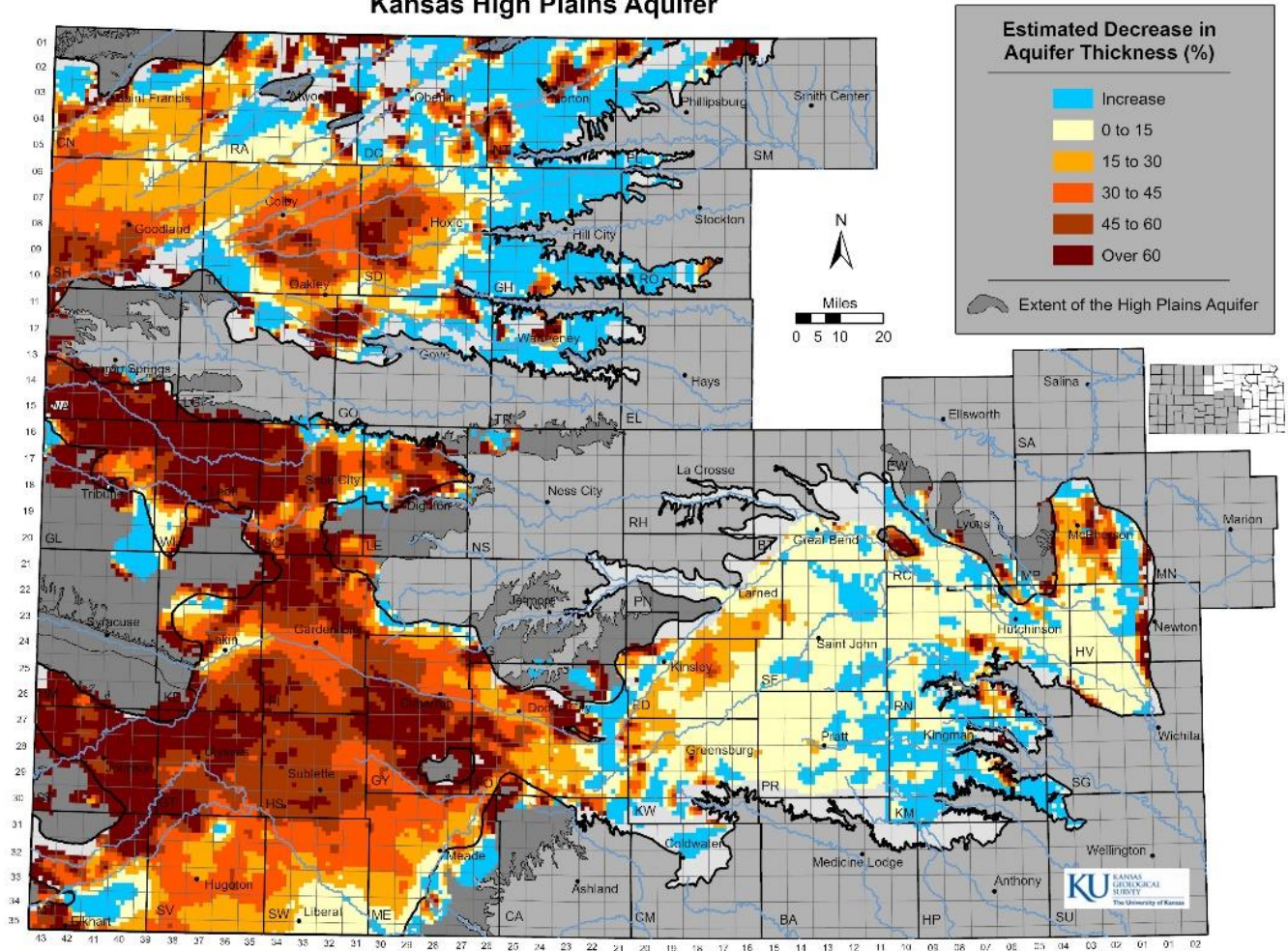


Figure - 2: KGS map showing groundwater level changes since predevelopment.

### Change in Aquifer Thickness, Predevelopment to Average 2022-2024, Kansas High Plains Aquifer

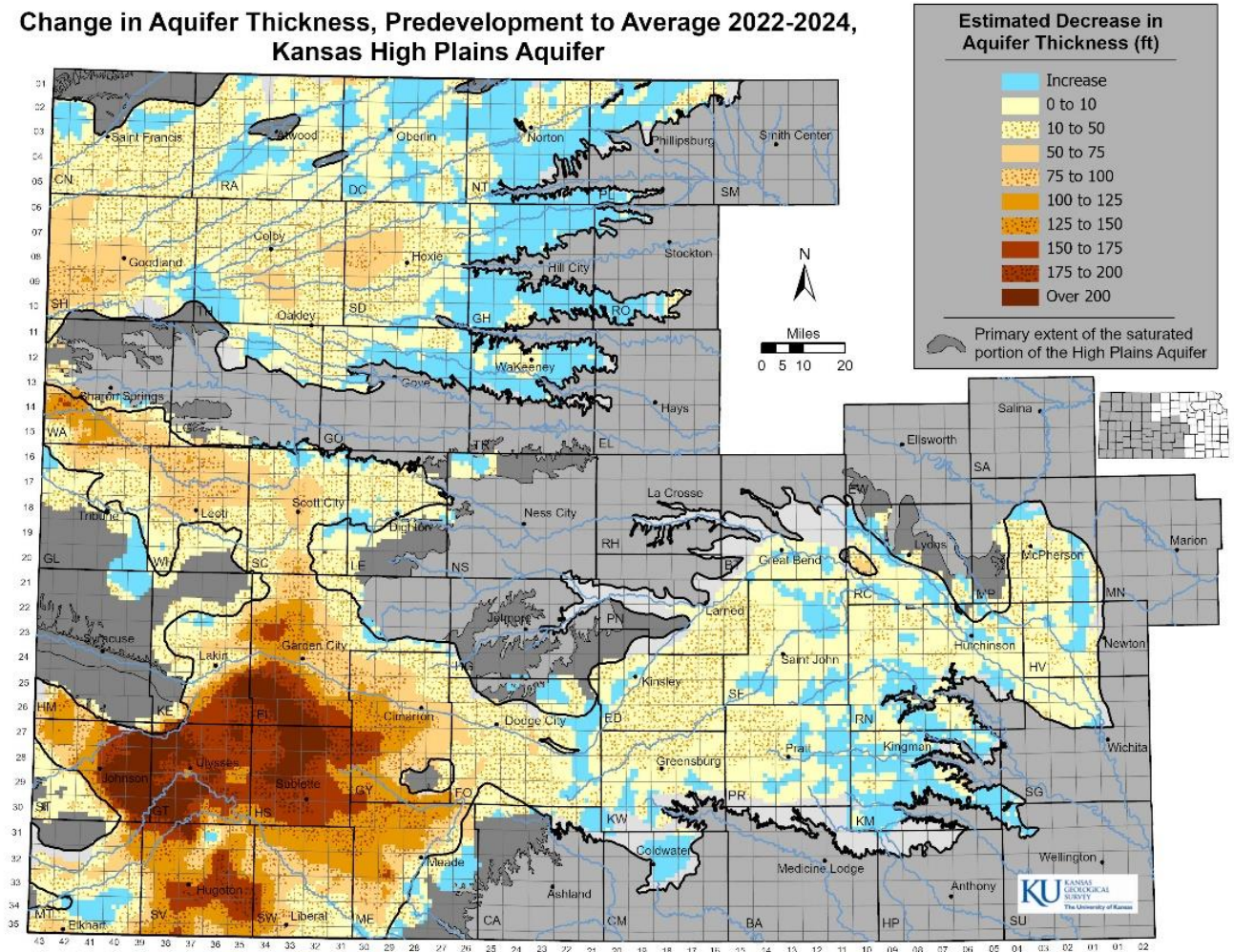


Figure - 3: KGS map showing groundwater level changes since predevelopment



### Interpolated Water Level Change, Kansas High Plains Aquifer Region, Average 2002-2004 to Average 2022-2024

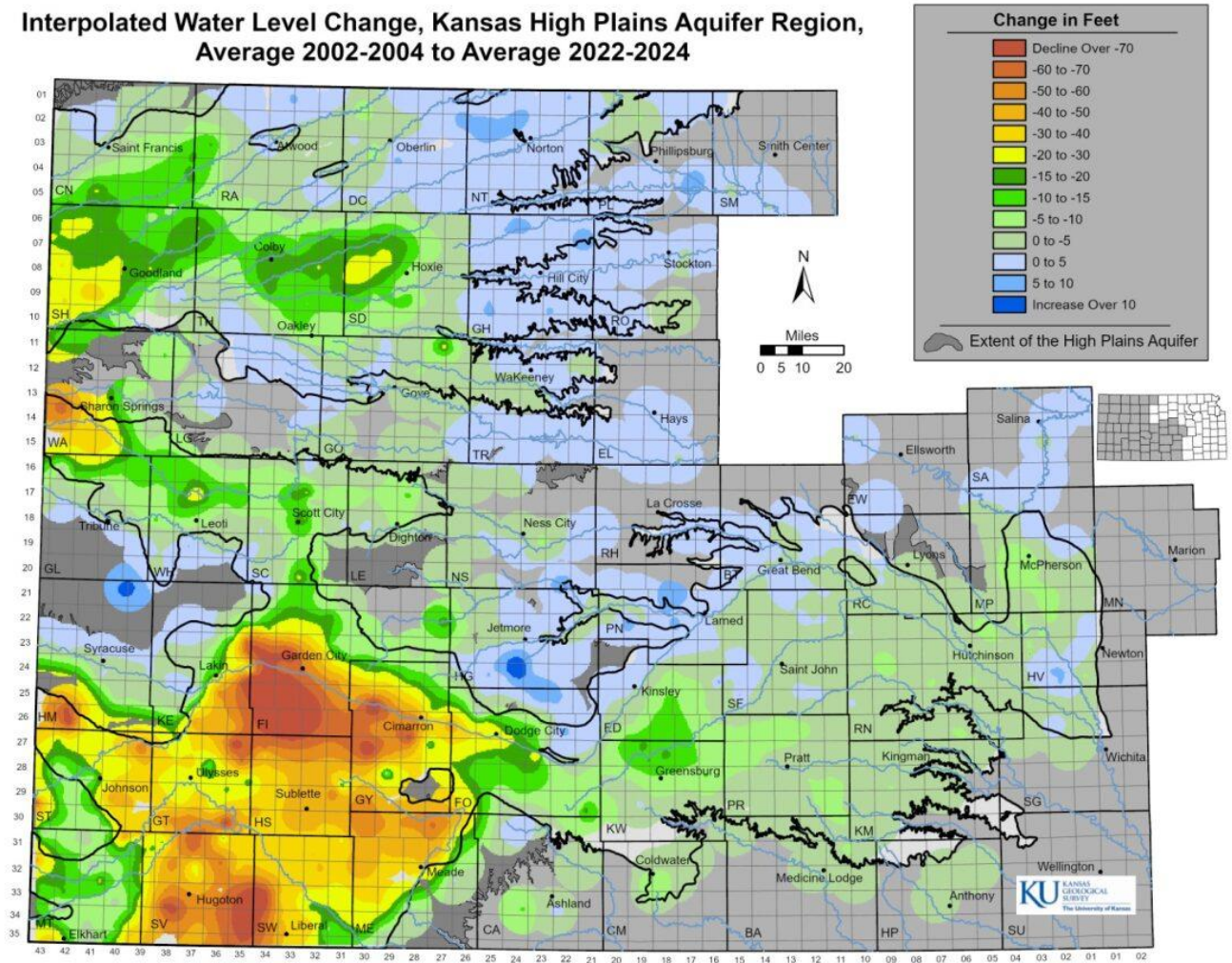


Figure - 4: KGS map showing 20-year groundwater level changes.

### Interpolated Water Level Change, Kansas High Plains Aquifer Region, Average 2012-2014 to Average 2022-2024

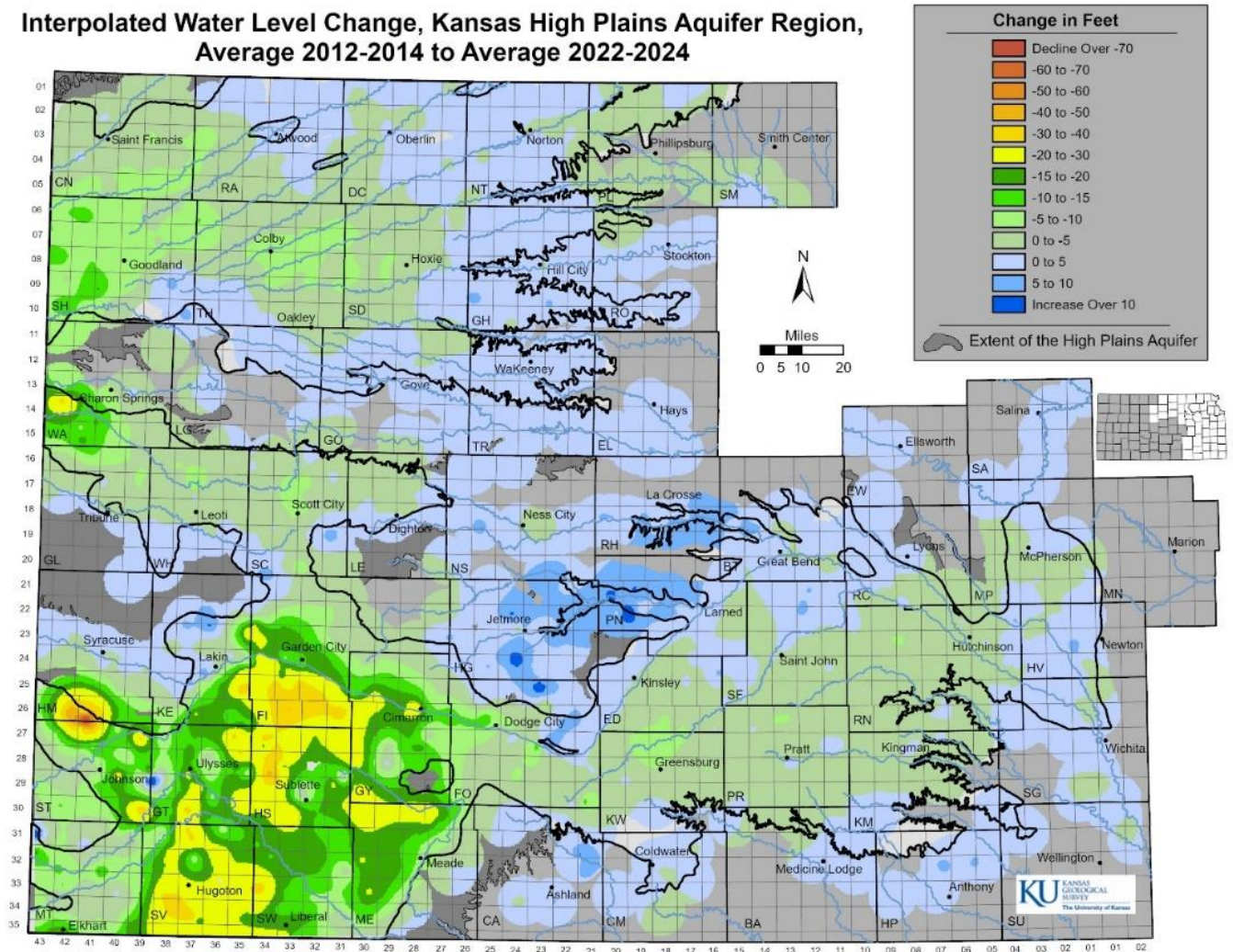


Figure 5 - KGS map showing 10-year groundwater level changes



**Equus Beds Groundwater Management District No. 2 Contamination Sites and Active Remediation Permitted Sites within GMD2 Boundary**

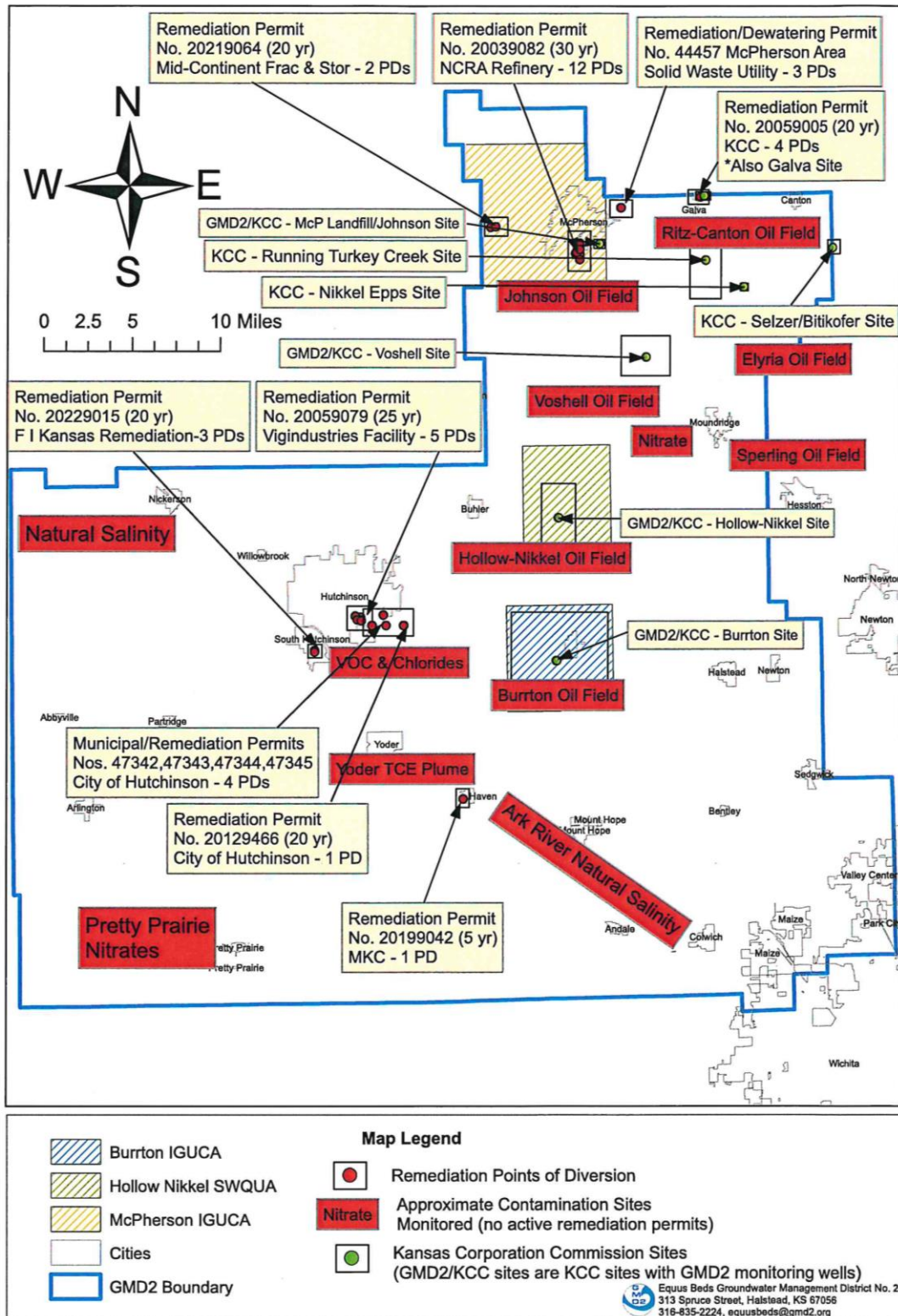


Figure 6 - Generalized map showing various groundwater contamination sites in GMD2



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# ATTACHMENT A

GMD2 2023 Financial Audit

EQUUS BEDS GROUNDWATER MANAGEMENT  
DISTRICT NO. 2

HALSTEAD, KANSAS

Financial Statement

For the Year Ended December 31, 2023

## INDEPENDENT AUDITOR'S REPORT

Board of Directors  
Equus Beds Groundwater Management District No. 2  
Halstead, Kansas

### ***Adverse and Unmodified Opinions***

We have audited the accompanying fund summary statement of regulatory basis receipts, expenditures, and unencumbered cash balances of Equus Beds Groundwater Management District No. 2, Halstead, Kansas (District), as of and for the year ended December 31, 2023, and the related disclosures to the financial statement.

### ***Adverse Opinion on U.S. Generally Accepted Accounting Principles***

In our opinion, because of the significance of the matter discussed in the Basis for Adverse and Unmodified Opinions section of our report, the accompanying financial statement referred to above does not present fairly, in conformity with accounting principles generally accepted in the United States of America, the financial position of the District as of December 31, 2023, or changes in financial position and cash flows thereof for the year then ended.

### ***Unmodified Opinion on Regulatory Basis of Accounting***

In our opinion, the accompanying financial statement referred to above presents fairly, in all material respects, the aggregate cash and unencumbered cash balance of the District as of December 31, 2023, and the aggregate receipts and expenditures for the year then ended in accordance with the financial reporting provisions of the *Kansas Municipal Audit and Accounting Guide* described in Note 1.

### ***Basis for Adverse and Unmodified Opinions***

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the *Kansas Municipal Audit and Accounting Guide*. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statement section of our report. We are required to be independent of the District, and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our adverse and unmodified audit opinions.

### ***Matter Giving Rise to Adverse Opinion on U.S. Generally Accepted Accounting Principles***

As discussed in Note 1 of the financial statement, the financial statement is prepared by the District on the basis of the financial reporting provisions of the *Kansas Municipal Audit and Accounting Guide*, which is a basis of accounting other than accounting principles generally accepted in the United States of America. The effects on the financial statement of the variances between the regulatory basis of accounting described in Note 1 and accounting principles generally accepted in the United States of America, although not reasonably determinable, are presumed to be material.

### ***Responsibilities of Management for the Financial Statement***

Management is responsible for the preparation and fair presentation of this financial statement in accordance with the *Kansas Municipal Audit and Accounting Guide* as described in Note 1; this includes determining that the regulatory basis of accounting is an acceptable basis for the preparation of the financial statement in the circumstances. Management is also responsible for the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of the financial statement that is free from material misstatement, whether due to fraud or error.

In preparing the financial statement, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the District's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

### ***Auditor's Responsibilities for the Audit of the Financial Statement***

Our objectives are to obtain reasonable assurance about whether the financial statement as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statement.

In performing an audit in accordance with GAAS, we:

- exercise professional judgment and maintain professional skepticism throughout the audit.
- identify and assess the risks of material misstatement of the financial statement, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statement.
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control. Accordingly, no such opinion is expressed.
- evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statement.
- conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the District's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

### ***Supplementary Information***

Our audit was conducted for the purpose of forming an opinion on the 2023 fund summary statement of regulatory basis receipts, expenditures, and unencumbered cash balances (basic financial statement) as a whole. The summary of regulatory basis expenditures—actual and budget and schedule of regulatory basis receipts and expenditures—actual and budget (Schedules 1 and 2 as listed in the table of contents) are presented for purposes of additional analysis and are not a required part of the 2023 basic financial statement, but are required to be presented under the provisions of the *Kansas Municipal Audit and Accounting Guide*. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the 2023 basic financial statement. The 2023 information has been subjected to the auditing procedures applied in the audit of the 2023 basic financial statement and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the 2023 basic financial statement or to the 2023 basic financial statement itself, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the accompanying supplementary information is fairly stated in all material respects in relation to the 2023 basic financial statement as a whole, on the basis of accounting described in Note 1.

We also previously audited, in accordance with auditing standards generally accepted in the United States of America, the basic financial statement of the District as of and for the year ended December 31, 2022 (not presented herein), and have issued our report thereon dated March 20, 2023, which contained an unmodified opinion on the basic financial statement. The 2022 basic financial statement and our accompanying report are not presented herein, but are available in electronic form from the web site of the Kansas Department of Administration at the following link <https://admin.ks.gov/offices/accounts-reports/local-government/municipal-services>. The 2022 actual column (2022 comparative information) presented in the individual fund schedule of regulatory basis receipts and expenditures—actual and budget for the year ended December 31, 2023 (Schedule 2 as listed in the table of contents) is presented for purposes of additional analysis and is not a required part of the 2023 basic financial statement. Such 2022 comparative information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the 2022 basic financial statement. The 2022 comparative information was subjected to the auditing procedures applied in the audit of the 2022 basic financial statement and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the 2022 basic financial statement or to the 2022 basic financial statement itself, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the 2022 comparative information is fairly stated in all material respects in relation to the basic financial statement as a whole for the year ended December 31, 2022, on the basis of accounting described in Note 1.

*Knudsen, Monroe & Company, LLC*

Certified Public Accountants

Newton, Kansas

March 6, 2024

## Equus Beds Groundwater Management District No. 2

SUMMARY STATEMENT OF RECEIPTS, EXPENDITURES AND UNENCUMBERED CASH  
Regulatory Basis

For the Year Ended December 31, 2023

<u>Fund</u>	<u>Beginning Unencumbered Cash Balance</u>	<u>Receipts</u>	<u>Expenditures</u>	<u>Ending Unencumbered Cash Balance</u>	<u>Add Encumbrances and Accounts Payable</u>	<u>Ending Cash Balance</u>
General	\$ 846,959	649,331	580,927	915,363	12,026	927,389

**Composition of Cash:**

The Halstead Bank:

Checking

\$ 927,389


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The notes to the financial statement are an integral part of this statement.

NOTES TO FINANCIAL STATEMENT

December 31, 2023

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Municipal Financial Reporting Entity

The Equus Beds Groundwater Management District No. 2 (District) was formed in 1974 as authorized by K.S.A. 82a-1020, et seq., to promote conservation and local management of the groundwater reserves found in the Equus Beds aquifer. The Equus Beds aquifer is located in south-central Kansas in an approximately 1,400-square-mile area within Harvey, Sedgwick, McPherson, and Reno counties.

The District is a local government entity primarily funded through property assessments and governed by a locally elected board of directors.

Regulatory Basis Fund Type

General Fund – used to account for all resources except those required to be accounted for in another fund.

Regulatory Basis of Accounting and Departure from Accounting Principles Generally Accepted in the United States of America

The *Kansas Municipal Audit and Accounting Guide* (KMAAG) regulatory basis of accounting involves the recognition of cash, cash equivalents, marketable investments, and certain accounts payable and encumbrance obligations to arrive at a net unencumbered cash and investments balance on a regulatory basis for each fund, and the reporting of changes in unencumbered cash and investments of a fund resulting from the difference in regulatory basis receipts and regulatory basis expenditures for the fiscal year. All recognized assets and liabilities are measured and reported at cost, unless they have been permanently impaired and have no future cash value or represent no future obligation against cash. The KMAAG regulatory basis does not recognize capital assets, long-term debt, accrued receivables and payables, or any other assets, liabilities or deferred inflows or outflows, other than those mentioned above.

The District has approved a resolution that is in compliance with K.S.A. 75-1120a(c), waiving the requirement for application of generally accepted accounting principles and allowing the District to use the regulatory basis of accounting.

Budgetary Information

Kansas statutes require that before any assessment is made, or user charge imposed, the Board shall submit the proposed budget for the ensuing year to the eligible voters of the District at a hearing called for that purpose by one publication in a newspaper or newspapers of general circulation within the District at least 28 days prior to the meeting. Following the hearing, the Board shall, by resolution, adopt either the proposed budget or a modified budget and determine the amount of land assessment or user charge, or both, needed to support such budget.

The Board can increase the originally adopted budget for previously unbudgeted increases in revenue. There were no budget amendments for the year ended December 31, 2023.

The statutes permit transferring budgeted amounts between line items within an individual fund. However, such statutes prohibit expenditures in excess of the total amount of the adopted budget of expenditures of individual funds. A budget comparison schedule is presented for the general fund showing actual receipts and expenditures compared to legally budgeted receipts and expenditures.

NOTES TO FINANCIAL STATEMENT

December 31, 2023

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

The legal annual operating budget is prepared using the regulatory basis of accounting, in which regulatory receipts are recognized when cash is received and expenditures include disbursements, accounts payable, and encumbrances, with disbursements being adjusted for the prior year's accounts payable and encumbrances. Encumbrances are commitments by the District for future payments and are supported by a document evidencing the commitment, such as a purchase order or contract. Any unused budgeted expenditure authority lapses at year end.

2. STEWARDSHIP, COMPLIANCE AND ACCOUNTABILITY

Compliance with Kansas Statutes

Management is not aware of any statutory violation incurred during the year ended December 31, 2023.

3. DEPOSITS AND INVESTMENTS

K.S.A. 9-1401 establishes the depositories which may be used by the District. The statute requires banks eligible to hold the District's funds have a main or branch bank in the county in which the District is located, or in an adjoining county if such institution has been designated as an official depository, and the banks provide an acceptable rate of return on funds. In addition, K.S.A. 9-1402 requires the banks to pledge securities for deposits in excess of FDIC coverage. The District has no other policies that would further limit interest rate risk.

K.S.A. 12-1675 limits the District's investment of idle funds to time deposits, open accounts, and certificates of deposit with allowable financial institutions; U.S. government securities; temporary notes; no-fund warrants; repurchase agreements; and the Kansas Municipal Investment Pool. The District has no investment policy that would further limit its investment choices.

Concentration of Credit Risk

State statutes place no limit on the amount the District may invest in any one issuer as long as the investments are adequately secured under K.S.A. 9-1402 and 9-1405.

Custodial Credit Risk - Deposits

Custodial credit risk is the risk that in the event of a bank failure, the District's deposits may not be returned to it. State statutes require the District's deposits in financial institutions to be entirely covered by federal depository insurance or by collateral held under a joint custody receipt issued by a bank within the State of Kansas, the Federal Reserve Bank of Kansas City, or the Federal Home Loan Bank of Topeka. All deposits were legally secured at December 31, 2023.

At December 31, 2023, the carrying amount of the District's deposits was \$927,389 and the bank balance was \$929,008. The bank balance was held by one bank resulting in a concentration of credit risk. Of the bank balance, \$250,000 was covered by federal depository insurance and the remaining \$679,008 was collateralized with securities held by the pledging financial institution's agents in the District's name.



NOTES TO FINANCIAL STATEMENT

December 31, 2023

4. DEFINED BENEFIT PENSION PLAN

Plan Description

The District participates in the Kansas Public Employees Retirement System (KPERS), a cost-sharing multiple-employer defined benefit pension plan as provided by K.S.A. 74-4901, et. seq. Kansas law establishes and amends benefit provisions. KPERS issues a publicly available financial report that includes financial statements and required supplementary information. KPERS' financial statements are included in its Annual Comprehensive Financial Report which can be found on the KPERS website at [www.kpers.org](http://www.kpers.org) or by writing to KPERS (611 South Kansas, Suite 100, Topeka, KS 66603) or by calling 1-888-275-5737.

Contributions

K.S.A. 74-4919 and K.S.A. 74-49,210 establish the KPERS member-employee contribution rates. KPERS has multiple benefit structures and contribution rates depending on whether the employee is a KPERS 1, KPERS 2 or KPERS 3 member. KPERS 1 members are active and contributing members hired before July 1, 2009. KPERS 2 members were first employed in a covered position on or after July 1, 2009, and KPERS 3 members were first employed in a covered position on or after January 1, 2015. Effective January 1, 2015, Kansas law established the KPERS member-employee contribution rate at 6% of covered salary for KPERS 1, KPERS 2 and KPERS 3 members. Member contributions are withheld by their employer and paid to KPERS according to the provisions of Section 414(h) of the Internal Revenue Code.

State law provides that the employer contribution rates for KPERS 1, KPERS 2 and KPERS 3 be determined based on the results of each annual actuarial valuation. Kansas law sets a limitation on annual increases in the employer contribution rates. The actuarially determined employer contribution rate (not including the 1% contribution rate for the Death and Disability Program) and the statutory contribution rate was 8.43% for the fiscal year ended December 31, 2023. Contributions to the pension plan from the District were \$25,927 for the year ended December 31, 2023.

Net Pension Liability

At December 31, 2023, the District's proportionate share of the collective net pension liability reported by KPERS was \$292,993. The net pension liability was measured as of June 30, 2023, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of December 31, 2022, which was rolled forward to June 30, 2023. The District's proportion of the net pension liability was based on the ratio of the District's contributions to KPERS, relative to the total employer and non-employer contributions of the Local subgroup within KPERS. Since the KMAAG regulatory basis of accounting does not recognize long-term debt, this liability is not reported in this financial statement.

The complete actuarial valuation report including all actuarial assumptions and methods, and the report on the allocation of the KPERS collective net pension liability to all participating employers are publicly available on the website at [www.kpers.org](http://www.kpers.org) or can be obtained as described above.

NOTES TO FINANCIAL STATEMENT

December 31, 2023

5. OTHER LONG-TERM OBLIGATIONS FROM OPERATIONS

Death and Disability Other Post-Employment Benefits

As provided by K.S.A. 74-4927, disabled members in the Kansas Public Employees Retirement System (KPERs) receive long-term disability benefits and life insurance benefits. The plan is administered through a trust held by KPERs that is funded to pay annual benefit payments. The employer contribution rate is set at 1% for the year ended December 31, 2023.

Other Employee Benefits

All employees earn 10 days of paid time off (PTO) per year for the first three years of employment; 15 days after three years of employment; 20 days after six years of employment; 25 days after 12 years of employment; 30 days after 18 years of employment; and 35 days after 24 years of employment. The maximum carryover is two-times their applicable annual accrual. Unused PTO is paid to employees upon termination. Unused PTO, with an estimated cost of \$42,309, has not been recorded as a liability in the accompanying financial statement.

6. RISK MANAGEMENT

The District is exposed to various risks of loss relating to torts; thefts of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The District obtains coverage from commercial insurance companies in order to effectively manage risk. There have been no significant reductions in coverage from the prior year and settlements have not exceeded coverage in the past three years.

During the ordinary course of its operations, the District is a party to potential claims, legal actions and complaints. It is the opinion of the District's management and legal counsel that these matters are not anticipated to have a material financial effect on the District.

7. MANAGEMENT'S DATE OF REVIEW

Management has performed an analysis of the activities and transactions subsequent to December 31, 2023, to determine the need for any adjustments to and/or disclosures within the audited financial statement. Management has performed their analysis through March 6, 2024, which is the date at which the financial statement was available to be issued.

EQUUS BEDS GROUNDWATER MANAGEMENT DISTRICT NO. 2

REGULATORY-REQUIRED  
SUPPLEMENTARY INFORMATION

For the Year Ended December 31, 2023

Equus Beds Groundwater Management District No. 2

SUMMARY OF EXPENDITURES – ACTUAL AND BUDGET  
Regulatory Basis

For the Year Ended December 31, 2023

<u>Fund</u>	<u>Certified Budget</u>	<u>Adjustments for Qualifying Budget Credits</u>	<u>Total Budget for Comparison</u>	<u>Expenditures Chargeable to Current Year</u>	<u>Variance - Over (Under)</u>
General Fund	<u>\$ 817,279</u>	<u>-</u>	<u>817,279</u>	<u>580,927</u>	<u>(236,352)</u>

Equus Beds Groundwater Management District No. 2

**General Fund**

SCHEDULE OF RECEIPTS AND EXPENDITURES – ACTUAL AND BUDGET  
Regulatory Basis

For the Year Ended December 31, 2023  
(With Comparative Actual Totals for the Prior Year Ended December 31, 2022)

	Prior Year Actual	Current Year		Variance - Over (Under)
		Actual	Budget	
<b>Receipts</b>				
Water user fees and assessments	\$ 585,653	557,129	558,031	(902)
Sales, service fees and other	30,870	37,499	45,000	(7,501)
Interest	19,476	54,703	500	54,203
Total receipts	<u>635,999</u>	<u>649,331</u>	<u>603,531</u>	<u>45,800</u>
<b>Expenditures</b>				
Salaries and benefits	368,797	394,065	375,179	18,886
Transportation	7,641	9,515	15,500	(5,985)
Administration	108,382	96,188	304,100	(207,912)
Water management projects	32,154	81,159	122,500	(41,341)
Total expenditures	<u>516,974</u>	<u>580,927</u>	<u>817,279</u>	<u>(236,352)</u>
Receipts over (under) expenditures	119,025	68,404		
Unencumbered cash, Beginning	<u>727,934</u>	<u>846,959</u>		
Unencumbered cash, Ending	<u>\$ 846,959</u>	<u>915,363</u>		