

1320 Research Park Drive
Manhattan, KS 66502
785-564-6700
www. agriculture.ks.gov



RECEIVED APR 15 2019

900 SW Jackson, Room 456
Topeka, KS 66612
785-296-3556

Mike Beam, Secretary

Laura Kelly, Governor

April 11, 2019

City of Wichita
ATTN Alan King, Director of Public Works & Utilities
455 N. Main
Wichita, KS 67202

Enclosed, please find the order of Chief Engineer dated April 11, 2019, which sets forth the available recharge credits as of the end of calendar year 2016 for the City of Wichita's aquifer storage and recharge project. The order was issued pursuant to K.A.R. 5-12-2 and is based upon the recharge credits shown in the Aquifer Storage and Recovery Project which was received in the office of the Chief Engineer on May 2, 2018.

A letter dated July 25, 2018, signed by Tim Boese, Manager, Equus Beds Groundwater Management District No. 2 (GMD2), informed the Chief Engineer that GMD2's board of directors reviewed the accounting report for 2016 and determined that it satisfies the requirement set forth in the Chief Engineer's order dated September 18, 2009, and September 28, 2010, pending corrections to referenced 2016 non-domestic withdrawals. These corrections were later determined to be due to a summary error in section 3.4 of the report and to not be impacting results of modeling.

If you have any questions, please feel free to contact this office.

Sincerely,

David W. Barfield P.E.

Chief Engineer

Division of Water Resources

DWB/kah

pc: GMD 2 Tim Boese
Brian McLeod, Deputy City Attorney
Tom Adrian, GMD 2 Attorney
Stafford Field Office



THE STATE OF KANSAS



KANSAS DEPARTMENT OF AGRICULTURE
Mike Beam, Secretary of Agriculture

DIVISION OF WATER RESOURCES
David W. Barfield, Chief Engineer

IN THE MATTER OF THE CITY OF WICHITA'S AQUIFER STORAGE AND RECOVERY PROJECT IN HARVEY AND SEDGWICK COUNTIES, KANSAS

ORDER APPROVING AVAILABLE RECHARGE CREDITS AS OF 2016

The Chief Engineer of the Kansas Department of Agriculture, Division of Water Resources, hereby makes the following findings and conclusions:

1. That on August 8, 2005, the Chief Engineer issued an order approving applications for approval to appropriate water for beneficial use, under File Nos. 45,567; 45,568; 45,569; 45,570; 45,571; 45,572; 45,573; 45,574; 45,575; 45,576 and 46,081 and the aquifer storage and recovery project to which they relate.
2. That the order of August 8, 2005 contained the following conditions:
 - “9. That the City by June 1 each year shall report an accounting of water diverted from diversion wells and recharged into the basin storage area in the Equus Beds Aquifer; that the Report shall be submitted to the Chief Engineer and GMD #2. The accounting shall use the Model and the accounting methodology described herein. In addition, the accounting reports shall meet the requirements of K.A.R. 5-12-2, including specifically addressing the following items for each cell in the basin storage area:
 - a) Natural and artificial recharge;
 - b) Groundwater inflow and outflow;
 - c) Evaporation and transpiration;
 - d) Groundwater water diversions from all non-domestic wells;
 - e) Infiltration from streams;
 - f) Groundwater discharge to streams; and
 - g) The calculated recharge credits.”
 - “10. That the final determination of available recharge credits in each cell in the basin storage area shall be made by the Chief Engineer, upon consideration of the report required in Paragraph No. 9, above, and any recommendation by GMD #2. The Chief Engineer shall make the final determination in writing.”
3. That on August 1, 2006, the Chief Engineer issued an order modifying certain provisions of the August 8, 2005 order necessitated by changing certain bank storage wells to surface water diversion points. Specifically, condition 9 of the August 8, 2005 order was modified to read as follows:
 - “9. That the City by June 1 each year shall report an accounting of water diverted from diversion wells and pumpsite(s) and recharged into the basin storage area in the Equus Beds Aquifer; that the Report shall be submitted to the Chief Engineer and GMD #2. The accounting shall use the Model and the accounting methodology described herein.

In addition, the accounting reports shall meet the requirements of K.A.R. 5-12-2, including specifically addressing the following items for each cell in the basin storage area:

- a) Natural and artificial recharge;
- b) Groundwater inflow and outflow;
- c) Evaporation and transpiration;
- d) Groundwater water diversions from all non-domestic wells;
- e) Infiltration from streams;
- f) Groundwater discharge to streams;
- g) The calculated recharge credits; and
- h) Surface water diversions.”

4. That on September 18, 2009, the Chief Engineer issued an order approving applications for approval to appropriate water for beneficial use, under File Nos. 46,627; 46,714; 46,715; 46,716; 46,717; 46,718; 46,719; 46,720; 46,721; 46,722; 46,723; 46,724; 46,725; 46,726; 46,727; 46,728; 46,729; 46,730; 46,731; 46,732; 46,733; 47,178; 47,179; 47,180; and 47,181, which also pertain to the aquifer storage and recovery project.

5. That the order of September 18, 2009 contained the following conditions:

“9. That the City by June 1 each year shall report an accounting of water diverted from the surface water intake and recharged into the basin storage area in the Equus Beds Aquifer; that the Report shall be submitted to the Chief Engineer and GMD #2. The accounting shall use the Model and the accounting methodology described herein. In addition, the accounting reports shall meet the requirements of K.A.R. 5-12-2, including specifically addressing the following items for each cell in the basin storage area:

- a) Natural and artificial recharge;
- b) Groundwater inflow and outflow;
- c) Evaporation and transpiration;
- d) Groundwater water diversions from all non-domestic wells;
- e) Infiltration from streams;
- f) Groundwater discharge to streams; and
- g) The calculated recharge credits.”

“10. That the final determination of available recharge credits in each cell in the basin storage area shall be made by the Chief Engineer, upon consideration of the report required in Paragraph No. 9, above, and any recommendation by GMD #2. The Chief Engineer shall make the final determination in writing.”

6. That on December 21, 2009, the Chief Engineer issued an order modifying the order issued on August 1, 2006, to allow certain review of the aquifer storage and recovery project to extend through 2010.

7. That on September 28, 2010, the Chief Engineer issued an order approving applications for approval to appropriate water for beneficial use, under File Nos. 47,440; 47,448; 47,449; 47,450; 47,451; 47,452; and 47,453, which also pertain to the aquifer storage and recovery project.

8. That the order of September 28, 2010 contained the following conditions:

“9. That the City by June 1 each year shall report an accounting of water diverted from the surface water intake and recharged into the basin storage area in the Equus Beds Aquifer; that the Report shall be submitted to the Chief Engineer and GMD #2. The accounting shall use the Model and the accounting methodology described herein. In addition, the accounting reports shall meet the requirements of K.A.R. 5-12-2, including specifically addressing the following items for each cell in the basin storage area:

- a) Natural and artificial recharge;
- b) Groundwater inflow and outflow;
- c) Evaporation and transpiration;
- d) Groundwater water diversions from all non-domestic wells;
- e) Infiltration from streams;
- f) Groundwater discharge to streams; and
- g) The calculated recharge credits.”

“10. That the final determination of available recharge credits in each cell in the basin storage area shall be made by the Chief Engineer, upon consideration of the report required in Paragraph No. 9, above, and any recommendation by GMD #2. The Chief Engineer shall make the final determination in writing.”


9. That on July 31, 2017, the City of Wichita requested an extension to submit the required report for calendar year 2016 to the Chief Engineer until December 22, 2017, to allow additional time for GMD No. 2 to finalize their comments for the 2016 report and allow the City to then incorporate those comments.
10. That on December 15, 2017, the City of Wichita requested a second extension to submit the required report for calendar year 2016 to the Chief Engineer until March 30, 2018, to allow additional time for incorporating comments from GMD No. 2 into the report.
11. That on March 28, 2018, the City of Wichita requested a third extension to submit the required report for calendar year 2016 to the Chief Engineer until April 30, 2018, to verify non-domestic water use data provided by DWR was correct.
12. That on April 4, 2018, the Chief Engineer extended the City of Wichita’s 2016 report deadline to April 30, 2018.
13. That on May 2, 2018, the Chief Engineer received a copy of the 2016 Aquifer Storage and Recovery, Annual Accounting Report from the City of Wichita.
14. That on July 25, 2018, the Chief Engineer received GMD No. 2’s recommendation to approve the 2016 ASR accounting report, pending corrections of referenced 2016 non-domestic withdrawals and adjustments to the accounting model for index cells along the western boundary of the basin storage area.
15. That via an email correspondence received April 10, 2019, the Chief Engineer was notified that the City of Wichita provided the referenced July 25, 2018 corrections (section 3.4 of the report) to GMD No. 2 on July 5, 2018, and that the correction did not impact the modeling but were confined to a previous year’s value being left in a summary section. The City also referenced in the April 10, 2019 correspondence that the City later notified GMD No. 2 verbally that the City would not be reissuing the report to apply the correction to section 3.4 and that stated regarding this issue “he [Steve Flaherty of GMD No. 2] was fine with just the email”.

16. That the Chief Engineer has reviewed the accounting for 2016 and GMD #2's recommendation thereof, and that the Chief Engineer finds that such accounting satisfies the requirements set forth in the order of August 8, 2005, as modified by the order of August 1, 2006, and that it satisfies the requirements set forth in the orders of the Chief Engineer dated September 18, 2009, and September 28, 2010.
17. That Table 4.2 on page 4-10 of "Aquifer Storage and Recovery Project 2016 Annual Accounting Report", prepared for City of Wichita, Kansas by Burns & McDonnell Engineering Company, Inc., Kansas City, Missouri, and dated April 2018 (the required accounting report for 2016), which table is attached to this Order as Attachment 1 and is incorporated herein, indicates the available recharge credits for each index cell in the basin storage area as of the end of calendar year 2016.

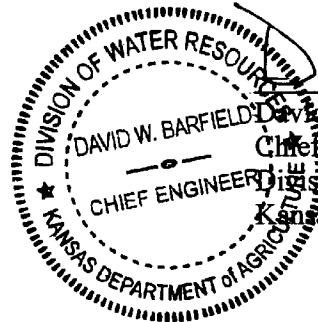
Order

IT IS NOW, THEREFORE, CONSIDERED AND ORDERED by the Chief Engineer pursuant to K.S.A. 82a-711 and K.A.R. 5-12-2, that the available recharge credits as of the end of calendar year 2016 for each index cell in the basin storage area for the aquifer storage and recovery project approved by the order of the Chief Engineer dated August 8, 2005, as modified by the order of the Chief Engineer dated August 1, 2006, and the orders of the Chief Engineer dated September 18, 2009, and September 28, 2010, are as set forth in Attachment 1 of this Order.

Dated at Manhattan, Kansas, this 11th day of April, 2019.



DAVID W. BARFIELD, P.E.
Chief Engineer
Division of Water Resources
Kansas Department of Agriculture



RIGHT TO HEARING AND TO ADMINISTRATIVE REVIEW

If you are aggrieved by this Order, you may:

1. Request a hearing before the Chief Engineer as provided in K.A.R. 5-14-3, or
2. Request administrative review by the Secretary of Agriculture as provided in K.S.A. 82a-711 and K.S.A. 82a-1901.

Failure to request a hearing before the Chief Engineer does not preclude your right to administrative review.

To obtain a hearing before the Chief Engineer, a written request for hearing must be filed with:

Chief Engineer
Division of Water Resources
Kansas Department of Agriculture
1320 Research Park Drive
Manhattan, Kansas 66502

within 15 days after service of this Order as provided in K.S.A. 77-531. The written request for hearing must set forth the factual and legal basis for requesting the hearing. The factual basis may be stated generally and shall not be required to be specific if the written request clearly establishes the existence of disputed facts. The request for hearing may be denied if the request fails to clearly establish factual or legal issues.

If you do not file a request for hearing before the Chief Engineer, you may petition for administrative review of the Order by the Secretary of Agriculture. A petition for review shall be in writing and state the basis for requesting administrative review. See K.S.A. 77-527. The petition must be filed within 30 days after service of this Order as provided in K.S.A. 77-531 and K.A.R. 5-14-3(f) and filed with:

Secretary of Agriculture
Kansas Department of Agriculture
1320 Research Drive
Manhattan, Kansas 66502
(785) 564-6700

If a request for hearing or a petition for administrative review is not filed as set forth herein, then this Order shall be effective and become a final agency action as defined in K.S.A. 77-607(b).

Certificate of Service

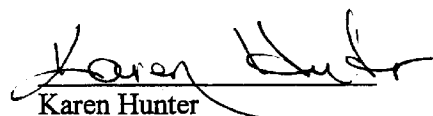
A copy of the foregoing Order was sent by First Class mail service this 11th day of April, 2019, to the following:

CITY OF WICHITA
ATTN: ALAN KING, DIRECTOR OF PUBLIC WORKS & UTILITIES
455 N MAIN
WICHITA KS 67202

EQUUS BEDS GROUNDWATER MANAGEMENT DISTRICT NO 2
313 SPRUCE
HALSTEAD KS 67046-1925

BRIAN MCLEOD
DEPUTY CITY ATTORNEY
CITY OF WICHITA
455 N MAIN
WICHITA KS 66202

TOM ADRIAN
GMD#2 ATTORNEY
301 N MAIN #400
NEWTON KS 67114


Karen Hunter

Attachment 1
Table 4.2
2016 Recharge Credit Summary
(Acre-Feet)

Index Cell No.	Previous Recharge Credit	2016 Metered Recharge	2016 Metered Recovery	Net Recharge Credit Underflow Entering Index Cell	Net Recharge Credit Underflow Leaving Index Cell	Net Recharge Credit Loss to River	Calculated Recharge Credit
1	---			---	---	---	---
2	220.4	0.6	0.1	21.1	37.4	---	204.6
3	170.3			26.9	5.5	36.0	155.7
4	---			---	---	---	---
5	404.6	2.4	0.5	0.0	19.9	---	386.5
6	178.5	131.6	1.7	3.1	78.8	---	232.7
7	14.0			97.1	9.8	82.5	18.9
8	---			---	---	---	---
9	537.3	2.1	0.0	0.0	22.4	---	517.0
10	190.1	53.9	0.4	43.1	85.3	---	201.4
11	75.7			85.3	47.4	13.4	100.2
12	16.0			21.8	5.4	10.6	21.9
13	---			---	---	---	---
14	1243.3	619.9	1.8	0.0	203.8	---	1657.5
15	217.6	205.6	2.1	43.5	61.6	---	403.1
16	96.3	98.0	1.9	40.8	44.1	---	189.2
17	34.6			45.2	1.2	31.2	47.4
18	---			---	---	---	---
19	4.4	13.0	1.4	8.6	64.2	---	-39.6
20	115.5	89.8	3.0	0.0	28.9	---	173.5
21	163.9	204.3	5.2	4.9	84.6	---	283.3
22	68.2	28.4	0.8	73.0	35.6	---	133.3
23	23.9			29.6	8.4	29.6	15.5
24	---			---	---	---	---
25	35.8			29.0	30.7	---	34.1
26	18.5	0.0	3.6	28.8	16.2	---	27.4
27	13.9			11.6	2.2	---	23.3
28	159.6	40.8	0.7	92.3	30.0	---	262.1
29	-57.4			159.9	0.0	296.0	-193.5
30	14.7			13.6	7.1	---	21.2
31	-16.7			2.2	44.9	---	-59.4
32	132.2			247.8	175.1	---	204.9
33	919.5	1536.5	0.0	0.0	760.2	---	1695.8
34	47.5			389.7	147.1	195.3	94.8
35	19.4			41.1	63.7	0.0	-3.2
36	-13.5			77.8	181.7	---	-117.4
37	-78.8			4.4	259.7	---	-334.2
38	8.7			77.6	54.6	17.4	14.3
Total	4978.2	3026.9	23.3	1719.8	2617.4	712.0	6372.2

Calculated recharge credits include negative values to generate the total recharge credit values, but effective recharge credits cannot be less than zero. The effective recharge credit in Index Cells with negative credits is zero.