

Rules and Regulations
Southwest Kansas Groundwater Management District No. 3
Division of Water Resources
Kansas Department of Agriculture
June, 2016

5-23-1. Definitions. As used in these regulations, by the southwest Kansas groundwater management district in the implementation of the groundwater management district act, and by the division of water resources in the administration of the Kansas water appropriation act and the groundwater management district act, unless the context clearly requires otherwise, the following words and phrases shall have the meanings ascribed to them in this regulation.

(a) “Confined aquifer” means an aquifer overlain and underlain by impermeable layers. Groundwater in a confined aquifer is normally under pressure greater than atmospheric pressure.

(b) “High plains aquifer” means the aquifer comprised of the undifferentiated Pleistocene-age deposits, Quaternary loess, alluvium, dune sand, the Ogallala formation, and deeper aquifers that are in vertical or horizontal hydraulic contact with the Ogallala formation.

(c) “Hydraulic contact” means the absence of an impermeable layer between aquifers.

(d) “Theis analysis” means the Theis non-equilibrium equation analysis described in pp. 108-113 in “ground water and wells: a reference book for the water-well industry,” published in 1966 by Edward E. Johnson, Inc. The pages specified in this subsection are hereby adopted by reference.

(e) “Unconfined aquifer” means an aquifer in which the groundwater is exposed to the atmosphere through openings in the overlying materials. The upper surface of an unconfined aquifer is the water table.

(f) “Well” means any artificial excavation that is drilled, cored, bored, washed, driven, dug, or otherwise constructed when the intended use of the excavation is for the acquisition, diversion, or artificial recharge of groundwater. (Authorized by K.S.A. 82a-706a and K.S.A. 2002 Supp. 82a-1028(o); implementing K.S.A. 82a-706a and K.S.A. 2002 Supp. 82a-1028; effective May 1, 1981; amended May 1, 1985; amended Sept. 22, 2000; amended Feb. 27, 2004.)

5-23-2. Tailwater control and waste. No water user shall allow waste of water. If the water is re-used, the user shall apply the water consistent with the approved application to appropriate water for beneficial use, vested right or appropriation right. All water users shall construct and operate the water distribution systems in a manner as to prevent the waste of water, and shall do everything necessary and proper to preserve the quality of the groundwater resources within the district. (Authorized by K.S.A. 1980 Supp. 82a-1028(o); implementing K.S.A. 1980 Supp. 82a-1028(n); effective May 1, 1981.)

K.A.R. 5-23-3. Minimum well spacing requirements: high plains aquifer. (a)(1) The minimum horizontal distance between each proposed nontemporary, nondomestic well and all other senior nontemporary, nondomestic wells diverting water from the high plains aquifer shall be determined from the following schedule.

| Quantity per well (acre-feet per year) | Minimum well spacing requirement |
|---|---|
| 15 or less | 660 feet |
| 16 - 200 | 1,300 feet |
| 201 – 300..... | 1,600 feet |
| 301 – 400..... | 1,900 feet |
| 401 – 500..... | 2,100 feet |
| more than 500 | 2,300 feet |

- (2) The minimum well spacing requirement shall be based on the maximum annual quantity of water. The required well spacing shall be the greater of either of the following:
- (A) The minimum spacing for the total authorized and requested quantity of water for the proposed well; or
- (B) the total authorized and requested annual quantity of water for the nontemporary, nondomestic well against which the spacing is being measured that is senior to the date on which the application was filed. If the quantity of water applied for includes a fraction of an acre-foot, the quantity of water shall be rounded down to the next whole number of acre-feet for the purpose of applying the table in this subsection.
- (b) The location of a well or wells on an application for approval to change the point of diversion under an existing water right shall be no more than 2,640 feet from the currently authorized and completed point of diversion.
- (c) A well shall be exempt from the minimum well spacing requirements of this regulation if the well meets either of the following conditions:
- (1) The well is being replaced within 300 feet of the currently authorized point of diversion.
- (2) The proposed replacement well location improves the spacing to all other wells for which the spacing requirement was not met on the date on which the application for a change in point of diversion was filed and continues to meet requirements for spacing to all wells for which the spacing requirement was met at the time the application for change in point of diversion was filed.
- (d) No application for approval to change the point of diversion under an approved application for which the original well has not been drilled shall be approved if the location of the proposed point of diversion decreases the distance from the approved location to any other existing wells to less than the spacing requirement for new applications.
- (e) Each nondomestic, nontemporary well shall be located a minimum of 660 feet from all domestic wells with a priority earlier than the date on which the change application was filed, unless all of the following conditions are met:
- (1) The domestic well is owned by the applicant.
- (2) The applicant signs a written request to waive the requirements for spacing to the domestic well.
- (3) The applicant submits information documenting the location and depth of the domestic well and any other information necessary for the chief engineer to determine whether the domestic well is likely to be impaired.

(4) A Theis analysis or other hydraulic analysis shows that the domestic well is not likely to be impaired by the proposed well.

(f) In the case of a battery of wells, as defined in K.A.R. 5-1-1, the minimum horizontal distance shall be measured from the geographic center of the wells comprising the battery.

(g) The total annual quantity per well shall be the sum of all of the quantities authorized or requested by any water rights, permits, or applications requesting or authorizing that well as a point of diversion. (Authorized by K.S.A. 82a-706a and K.S.A. 2002 Supp. 82a-1028; implementing K.S.A. 82a-706a, K.S.A. 2002 Supp. 82a-711, K.S.A. 2002 Supp. 82a-708b, and K.S.A. 82a-1028; effective May 1, 1981; amended May 1, 1985; amended Aug. 28, 1989; amended Sept. 30, 1991; amended Sept. 22, 2000; amended Feb. 27, 2004.)

K.A.R. 5-23-3a. Minimum well spacing requirements: confined aquifers. (a)(1) The minimum horizontal distance between each proposed nontemporary, nondomestic well and all other senior nontemporary, nondomestic wells diverting water from a confined aquifer shall be determined from the following schedule.

| Quantity per well (acre-feet per year) | Minimum well spacing requirement | Required distance from hydraulic contact point |
|---|---|---|
| 15 or less | 660 feet | 2,640 feet |
| 16 to 25 | 2,300 feet | 1 mile |
| 26 to 100 | 5,280 feet | 2 miles |
| More than 100 | 10,560 feet | 5 miles |

(2) The minimum well spacing requirement shall be based on the authorized maximum annual quantity of water. The well spacing requirement shall be the greater of either of the following:

(A) The minimum spacing for the total authorized and requested annual quantity of water of the proposed well; or

(B) the total authorized and requested quantity of water for nontemporary, nondomestic well against which spacing is being measured that is senior to the date on which the application was filed.

The total annual quantity of water per well shall be the sum of all of the quantities authorized or requested by any water rights, approvals of applications, or applications requesting or authorizing that well as a point of diversion.

If the quantity of water applied for includes a fraction of an acre-foot, the quantity of water shall be rounded down to the next whole number of acre-feet for the purpose of applying the table in this subsection.

(b) In the case of a battery of wells, as defined in K.A.R. 5-1-1, the minimum horizontal distance shall be measured from the geographic center of the wells comprising the battery.

(c) A well penetrating both a confined and unconfined aquifer shall be constructed to prevent the vertical migration of water between the aquifers. A well diverting water from the

Dakota aquifer system shall be constructed to prevent the vertical migration of water between the Dakota aquifer system and all other freshwater aquifers.

(d) The location of a well or wells on an application for approval to change the point of diversion under an existing water right shall be no more than 2,640 feet from the currently authorized and completed point of diversion

(e) A well shall be exempt from the minimum well spacing requirements of this regulation if the well meets either of the following conditions:

(1) The well is being replaced within 300 feet of the currently authorized point of diversion.

(2) The proposed replacement well location improves the spacing to all other wells for which the spacing requirement was not met on the date on which the application for a change in point of diversion was filed and continues to meet requirements for spacing to all wells for which the spacing requirement was met at the time the application for change in point of diversion was filed.

(f) No application for approval to change the point of diversion under an approval of application for which the original well has not been drilled shall be approved if the location of the proposed point of diversion decreases the distance from the approved location to any other existing wells to less than the spacing requirements for a new application.

(g) Each nondomestic, nontemporary well shall be located a minimum of 1,320 feet from all domestic wells in the same or a hydraulically connected aquifer with a priority earlier than the date on which the change application was filed, unless all of the following conditions are met:

(1) The domestic well is owned by the applicant.

(2) The applicant signs a written request to waive the requirements for spacing to the domestic well.

(3) The applicant submits information documenting the location and depth of the domestic well and any other information necessary for the chief engineer to determine whether the domestic well is likely to be impaired.

(4) A Theis analysis or other hydraulic analysis shows that the domestic well is not likely to be impaired by the proposed well.

(h) The minimum horizontal distance between a nontemporary, nondomestic well withdrawing water from a confined aquifer and a well withdrawing water from an unconfined aquifer shall be 660 feet. (Authorized by K.S.A. 82a-706a and K.S.A. 2002 Supp. 82a-1028; implementing K.S.A. 82a-706a, K.S.A. 2002 Supp. 82a-711, K.S.A. 2002 Supp. 82a-708b, and K.S.A. 2002 Supp. 82a-1028; effective Sept. 22, 2000; amended Feb. 27, 2004.)

5-23-4. High plains aquifer. (a) Except as specified in subsection (b), the district shall be closed to new appropriations of water in the high plains aquifer.

(b) This regulation shall not apply to the following:

(1) Wells for domestic use;

(2) wells authorized by temporary permits;

(3) wells authorized by term permits of no more than five years;

(4) an application to appropriate 15 acre-feet of water or less if all of the following conditions are met:

(A) The area is closed to new appropriations, but the sum of the annual quantity requested by the proposed appropriation and the total quantities authorized by prior permits because of this exemption does not exceed 15 acre-feet in a circle with a radius of two miles surrounding the proposed point of diversion.

(B) Well spacing criteria have been met.

(C) Approval of the application will not authorize an additional quantity of water out of an existing well authorized by a nondomestic approval of application or water right, which would result in a total combined annual quantity of water authorized from that well in excess of 15 acre-feet.

(D) All other criteria for processing a new application have been met.

(c) Each application filed to request a well within the area described in subsection (e) shall include a driller's log, an electric log, and a laboratory analysis from a state-certified laboratory of the chloride concentrations in samples taken from whatever depths are necessary to determine the vertical location where the chloride concentrations exceed 250 milligrams per liter (mg/l). The samples shall be taken from a well located within a 300-foot radius of the proposed well. A state-certified laboratory analysis shall be used to determine the vertical location of the chloride concentrations exceeding 250 mg/l.

(d) Each well constructed in the area described in subsection (e) shall be constructed in a manner that prevents the movement of water containing 250 mg/l of chlorides beyond its naturally occurring condition.

(e) The level of chlorides may exceed 250 mg/l in the following areas:

(1) The west ½ of townships 33, 34, and 35 south, range 28 west in Meade County, Kansas;

(2) the east ½ of township 33 south, range 29 west in Meade County, Kansas;

(3) all of townships 34 and 35 south, ranges 29 and 30 west in Meade County, Kansas; and

(4) all of townships 34 and 35 south, ranges 31 and 32 west and the east ½ of townships 34 and 35 south, range 33 west in Seward County, Kansas. (Authorized by K.S.A. 82a-706a and K.S.A. 2015 Supp. 82a-1028; implementing K.S.A. 82a-706a, K.S.A. 2015 Supp. 82a-711, and K.S.A. 2015 Supp. 82a-1028; effective May 1, 1981; amended May 1, 1986; amended Aug. 28, 1989; amended Sept. 22, 2000; amended Nov. 21, 2003; amended May 13, 2016.)

5-23-4a. Criteria for closing townships to new appropriations. (a) Entire townships shall be closed to further appropriation of water for beneficial use from the high plains aquifer if at least one of the following conditions exists:

(1) The entire township is fully appropriated.

(A) A township shall be considered to be fully appropriated if the aquifer within the township would be depleted by 40 percent or more in 25 years if current vested rights and appropriations are fully exercised and all limitation clauses listed on permits to appropriate water and certificates are in force.

(B) Aquifer depletion shall be calculated using the allowable annual appropriation formula described in subsection (b) with the area of consideration equal to the number of acres within sections of land containing saturated thickness within the township.

(2) The average saturated thickness of the aquifer within the township is 50 feet or less, as set forth in K.A.R. 5-23-15.

(3) The aquifer has been depleted by 20 percent or more since 1950. Depletion since 1950 shall be determined from maps or data, or both, recommended by the board and adopted by the chief engineer by regulation.

(4) Groundwater pumping has lowered the water level of the high plains aquifer, which has diminished the baseflow from the aquifer to the stream and impaired senior domestic surface water rights and other senior surface water rights.

(5) Groundwater pumping in an area has lowered the water level of the freshwater to the point that the issuance of additional approvals of applications will induce water in excess of 250 milligrams per liter chlorides to mix with overlying freshwater, causing contamination of the overlying freshwater.

(b) Except for the types of wells listed in subsection (c), the proposed appropriation, when added to the vested rights, prior appropriation rights, and earlier priority applications, shall not exceed, in 25 years, a calculated rate of depletion of 40 percent of the saturated thickness underlying the area of consideration. For the purpose of analysis, all vested rights, appropriation rights, approvals of applications, and prior unapproved applications shall be considered to be fully exercised, and all limitation clauses on approvals of application and certificates shall be considered to be in force. The allowable annual appropriation shall be calculated using the following formula:

$$\text{Allowable Aquifer Yield} = \frac{0.40AMS}{25} + \frac{AR}{12}$$

Allowable aquifer yield = the amount of water, measured in acre-feet, available annually for appropriation from a proposed point of diversion (well).

A = the "area of consideration" shall be equal to the number of acres within sections containing saturated thickness within the township and within the district.

M = the number of feet of average saturated thickness of the high plains aquifer within the township as set forth in K.A.R. 5-23-15.

S = the storage coefficient or a specific yield of 15 percent.

R = average annual recharge and return flow, which shall be one inch per year.

(c) The calculation specified in subsection (b) shall not include the following types of wells:

(1) Wells for domestic use;

(2) wells authorized by temporary permits; and

(3) wells authorized by term permits of fewer than five years. (Authorized by K.S.A. 82a-706a and 82a-1028(o); implementing K.S.A. 82a-1028(n); effective Sept. 30, 1991; amended Sept. 22, 2000; amended Nov. 21, 2003.)

5-23-4b. (Authorized by K.S.A. 82a-706a and K.S.A. 82a-1028; implementing K.S.A. 82a-706a and K.S.A. 2002 Supp. 82a-1028; effective Sept. 22, 2000; amended Nov. 21, 2003; revoked May 13, 2016.)

5-23-5. (Authorized by K.S.A. 1980 Supp. 82a-1028(o); implementing K.S.A. 1980 Supp. 82a-1028(n); effective May 1, 1981; revoked Nov. 21, 2003.)

5-23-6. Water-measuring devices. The diversion works for each nontemporary, nondomestic well located within the boundaries of the district shall be equipped with a water flowmeter that meets or exceeds the specifications in K.A.R. 5-1-4 through 5-1-12.

(a) The owner shall perform the following:

(1) Ensure that the water flowmeter is installed according to specifications in K.A.R. 5-1-4 through 5-1-12;

(2) maintain the water flowmeter in proper working condition whenever the diversion of water for nondomestic use can reasonably be expected to occur; and

(3) promptly initiate action to repair or replace any water flowmeter that is out of compliance, and correct any problems with the installation of a water flowmeter.

(b) The owner shall notify the district, on a form prescribed by the district, within 30 days after any of the following:

(1) A new water flowmeter is installed.

(2) A water flowmeter is repaired and reinstalled.

(3) A water flowmeter is repaired without removing the water flowmeter.

(4) An improper water flowmeter installation has been corrected.

(c) An extension of time to install a water flowmeter may be granted by the district for a reasonable period of time if just cause is shown to the district. Each appeal shall be filed with the board at least 10 days before a regularly scheduled board meeting. Just cause may include any of the following:

(1) A contract has been signed by the owner and the seller to sell or install the water flowmeter, but the seller cannot complete the sale or installation before diversion of water will take place.

(2) Weather conditions prevent the water flowmeter from being installed before the diversion of water.

(3) Legal proceedings prevent the owner from installing the water flowmeter.

(4) The supply of natural gas to power the well has been cut off by the seller of the natural gas for reasons beyond the control of the owner of the water right.

(d) A water flowmeter shall not be required to be installed if any of the following criteria is met:

(1) A well is authorized to divert 15 acre-feet or less per calendar year.

(2) Two or more wells are authorized by the same water right or approval of application with one authorized annual quantity of water for all the wells, and all of the water diverted by all of the wells is measured by a single water flowmeter prior to its application to beneficial use.

(3) The well is enrolled in a multiyear federal conservation program or the water rights conservation program pursuant to K.A.R. 5-7-4.

(4) The well is registered as inactive with the Kansas department of health and environment.

(5) An affidavit is filed by the owner with the district stating that the well is not, and will not be, operated until a water flowmeter meeting the specifications in K.A.R. 5-1-4 through

5-1-12 is properly installed. Thirty days before operating the well, the owner shall file a notice with the district indicating that a water flowmeter has been installed and indicate when the owner proposes to begin the diversion of water. (Authorized by and implementing K.S.A. 82a-1028, as amended by L. 2002, Ch. 137, § 5; effective May 1, 1981; amended May 1, 1985; amended Jan. 10, 2003.)

5-23-10. Reserved.

5-23-11. Procedures for non-compliance with rules and regulations. The district, its board or manager, any eligible voter within the district, or any person residing within the district that is at least eighteen (18) years of age, may file a written complaint with the district alleging a violation of these rules and regulations, the management program, the groundwater management district act (K.S.A. 82a-1020 et seq.), or the water appropriation act (K.S.A. 82a-701 et seq.). The written complaint shall be filed at the district office.

Within thirty (30) days following the filing of the complaint, a representative of the district designated by the board shall investigate the complaint. If the representative of the district finds that a violation has existed or presently exists, the representative shall issue a written directive to the violator stating the nature of the violation and directing the violator to come into compliance with these rules and regulations.

If the violator fails to comply with the directive the district may: (1) Seek to enjoin the violator's use of water by suitable action in district court until such time as the violator complies; or

(2) Seek the assistance of the chief engineer and the attorney general of the state of Kansas to enjoin the violator's use of water until such time as the violator complies. (Authorized by K.S.A. 1980 Supp. 82a-1028(o); implementing K.S.A. Supp. 1980 82a-1028(n); effective May 1, 1981.)

5-23-14. Dakota aquifer system. All evaluations in the southwest Kansas groundwater management district no. 3 involving a determination of the extent of the confined and unconfined Dakota aquifer system shall use the information shown in the Kansas geological survey open file report number 98-37, released August 1998, which is hereby adopted by reference, unless the applicant or the district provides, or the chief engineer has available, better or more site-specific data concerning the extent of the confined and unconfined Dakota aquifer system. (Authorized by K.S.A. 82a-706a and K.S.A. 82a-1028(o); implementing K.S.A. 82a-709, K.S.A. 1999 Supp. 82a-711, and K.S.A. 82a-1028(n); effective Sept. 22, 2000.)

5-23-15. Saturated thickness of the high plains aquifer. All evaluations in the southwest Kansas groundwater management district no. 3 involving a determination of the saturated thickness of the high plains aquifer shall use the information shown in the Kansas geological survey open file report number 98-52, plate B, released February 1999, which is hereby adopted by reference, unless the applicant or the district provides, or the chief engineer has available, better or more site-specific data concerning the saturated thickness of the high plains aquifer. (Authorized by K.S.A. 82a-706a and K.S.A. 82a-1028(o); implementing K.S.A. 1999 Supp. 82a-711 and K.S.A. 82a-1028(n); effective Sept. 22, 2000.)