

Kansas Administrative Regulations

Kansas Department of Agriculture—Division of Water Resources

Article 22.—Equus Beds Groundwater Management District No. 2

5-22-7. Safe yield.

(a) Except as specified in subsection (b), the approval of each application for a change in the point of diversion, term permit, and permit to appropriate water for beneficial use shall be subject to the following requirements:

(1) The sum of prior appropriations shall include all of the following:

- (A) The proposed application;
- (B) vested rights;
- (C) appropriation rights;
- (D) term permits;
- (E) earlier priority applications; and
- (F) baseflow nodes.

The sum of prior appropriations shall not exceed the allowable safe-yield amount for the area of consideration. The non-consumptive use of groundwater previously authorized by the chief engineer shall be excluded from the sum of prior appropriations.

(2) The quantity authorized on all prior permits, certificates, and vested rights, the quantity requested on prior applications, and the quantities allocated to baseflow nodes shall be used to calculate the sum of prior appropriations and baseflow allocations.

(3) All conditions and limitation clauses listed on all prior appropriations and applications in the area of consideration shall be considered in effect.

(4) The baseflow allocation for baseflow nodes shall be calculated using the formula $Q_a = T/N$ where:

- (A) Q_a is the baseflow allocation per baseflow node in acre-feet per year;
- (B) T is the total baseflow allocation for a reach of a stream in acre-feet per calendar year. T is the average of the 12 calendar months' daily flow values in cubic feet per

second that were equaled or exceeded 90 percent of the time during a specifically designated hydrologically significant period of record, times a factor of 724; and

(C) N is the number of baseflow nodes established on a stream or reach of a stream. Nodes are located at the upstream end of the watercourse reach and thereafter at the intersection of the channel of a watercourse and an arc of a 1,320-foot-radius circle whose center is located on the previously established baseflow node.

(5) The allowable safe-yield amount shall be calculated using the formula $S = A \times K$ where:

(A) S is the allowable safe-yield amount in acre-feet per year;

(B) A is the area of consideration; and

(C) K is an aquifer recharge value in feet. Everywhere in the district, except in McPherson county and the well spacing areas specified in K.A.R. 5-22-2(d)(1), K is equal to 0.5 feet per year.

(i) In McPherson county, K is a constant equaling 0.25 feet per year.

(ii) In the well spacing areas specified in K.A.R. 5-22-2(d)(1) and located south of the centerline of the North Fork Ninnescah river, K is equal to 0.25 feet per year. In the well spacing areas specified in K.A.R. 5-22-2(d)(1) and located north of the centerline of the North Fork Ninnescah river, K is equal to 0.1667 feet per year.

K is calculated by multiplying the recharge percentage times the average annual precipitation of 2.5 feet per year. The recharge percentage is 10 percent in McPherson county and the well spacing areas specified in K.A.R. 5-22-2(d)(1) and located south of the centerline of the North Fork Ninnescah river, 6.667 percent in the well spacing areas specified in K.A.R. 5-22-2(d)(1) and located north of the centerline of the North Fork Ninnescah river, and 20 percent for the rest of the district.

(6) When evaluating an application for a change in the point of diversion, each application with a priority earlier than the priority established by the filing of the application of change shall be included in the safe-yield analysis.

(7) If the perimeter of the area under consideration intersects a group of wells authorized under prior applications, permits, certificates, or vested rights, a reasonable quantity of water shall be assigned to each well based upon the best available information.

(b) The following shall not be subject to this regulation:

(1) An application to appropriate groundwater in an area not closed by regulation or intensive groundwater use control area order by the chief engineer to new non-domestic, non-temporary permits and term permits for five or fewer years, if all of the following conditions are met:

(A) The annual quantity of water requested in the application does not exceed 15 acre-feet;

(B) the sum of the annual quantity of water requested in the application and the total annual quantities of water authorized by prior approvals of applications allowed because of an exemption pursuant to this regulation does not exceed 45 acre-feet in a two-mile-radius circle surrounding the proposed point of diversion;

(C) the approval of the application does not authorize an additional quantity of water out of an existing authorized point of diversion with a non-domestic approval of application or water right that would then authorize a total combined annual quantity of water from that point of diversion in excess of 15 acre-feet;

(D) the approval of the application does not authorize an additional quantity of water to be used on a currently authorized non-domestic place of use in excess of 15 acre-feet;

(E) the approval of the application does not authorize an additional quantity of water to be pumped through a common distribution system in excess of 15 acre-feet;

(F) the application meets the well spacing criteria in K.A.R. 5-22-2;

(G) the application meets the requirements of all other applicable regulations in effect when the application is filed; and

(H) the maximum authorized rate of diversion does not exceed 50 gallons per minute;

(2) an application for a non-consumptive use of groundwater;

(3) an application for change in point of diversion, if the following conditions are met:

(A) The diversion works were completed 300 feet or less from the originally authorized point of diversion and within 150 feet of the location approved by the chief engineer;

(B) a notice of completion was timely filed with the chief engineer under the original approval of application; and

(C) if located within the well spacing areas specified in K.A.R. 5-22-2(d)(1), both of the following conditions are met:

(i) The number of wells comprising the point of diversion is not proposed to be increased; and

(ii) each point of diversion is proposed to be relocated 300 feet or less from the currently authorized location, the currently authorized point of diversion and diversion works have been completed, and a notice of completion has been timely filed with the chief engineer before the effective date of this regulation;

(4) an application requesting only an additional rate of diversion on an existing well, if the approval of the application meets the following requirements:

(A) Is limited to the maximum annual quantity of water authorized by a prior certified, vested, or appropriation right; and

(B) contains both of the following requirements:

(i) The approved application for additional rate shall be dismissed if the prior certified, vested, or appropriation right is dismissed and terminated; and

(ii) the approved or certified maximum annual quantity of water shall be reduced in an amount equal to any subsequent reduction in the maximum annual quantity of water authorized by the prior certified, vested, or appropriation right;

(5) an application for a standby well;

(6) an application for a bank storage well only to the extent that the bank storage well is withdrawing bank storage water; and

(7) an application for an aquifer storage and recovery well.

(Authorized by and implementing K.S.A. 82a-706a and K.S.A. 2015 Supp. 82a-1028; effective May 1, 1983; amended Oct. 15, 1990; amended March 7, 1994; amended Nov. 12, 2004; amended May 14, 2010; amended June 12, 2015; amended March 25, 2016.)

***** Authenticated Kansas Administrative Regulation *****