

Kansas Administrative Regulations

Kansas Department of Agriculture—Division of Water Resources

Article 12.—Aquifer Storage and Recovery

5-12-1. Aquifer storage and recovery permitting.

(a) An operator may store water in an aquifer storage and recovery system under a permit to appropriate water for artificial recharge if the water appropriated is source water. The requirements of this article shall be in addition to any requirements of the Kansas department of health and environment concerning underground injection wells, including article 46 of the regulations adopted by the Kansas department of health and environment.

(b) Each application for a permit to appropriate water for artificial recharge shall describe the horizontal and vertical extent of the basin storage area in which the source water will be stored.

(1) The horizontal extent shall be determined by a closed boundary within which the recharge system used to store the water will be physically located. The recharge system may include recharge pits, recharge trenches, recharge wells, or other similar systems that cause source water to enter the storage volume of the basin storage area, either by gravity flow or by injection. The basin storage area may be subdivided into smaller areas representative of the areas that may be recharged by the individual recharge systems.

(2) The vertical extent shall be defined by a minimum index level and a maximum index level for the basin recharge storage area, or for each subdivided area within the basin storage area if the basin storage area is subdivided. The maximum index water level shall represent the maximum storage potential for the basin storage area.

(c) Each application for a permit to appropriate water for artificial recharge shall specify the maximum annual quantity and maximum rate of diversion of source water.

(d)(1) Each application for a permit to appropriate water for artificial recharge shall include a methodology for accounting for water stored in a basin storage area both on

an annual basis and on a cumulative basis so that recharge credits can be calculated. If more than one application for a permit to appropriate water for artificial recharge relates to the same aquifer storage and recovery system, each application shall use the same methodology for accounting for water stored in the basin storage area. The accounting of the water balance of all water entering and leaving the basin storage area shall be determined by using sound engineering methods based on actual measurements, generally accepted engineering methodology, or a combination of both.

(2) Approval of any application for a permit to appropriate water for artificial recharge shall be contingent upon the chief engineer's approval of the method for accounting for the basin storage area.

(e) Each applicant for recovery of water stored by the holder of a permit to appropriate water for artificial recharge to store water in a basin storage area shall obtain a permit separate from the aquifer storage permit to appropriate water for beneficial use for each well used to recover the water stored. The maximum annual quantity of water that may be appropriated for this purpose shall be no more than the maximum cumulative recharge credits available to the operator of the aquifer storage and recovery system. These credits shall be determined by the accounting methodology approved under a permit to appropriate water for artificial recharge pertaining to the aquifer storage and recovery system. In determining whether diversion of the annual quantity impairs other water rights, the following data may be considered by the chief engineer:

- (1) The maximum storage volume available in the basin storage area;
- (2) the spatial distribution of recharge and withdrawal systems;
- (3) the maximum rate of diversion at which the water will be withdrawn; and
- (4) any other relevant information.

Recharge credits may be accumulated over more than one year, and any amount of recharge credits available may be withdrawn in accordance with the permit if the withdrawal does not impair other water rights.

(f) The approval of application, if the water to be diverted is the water artificially recharged into the basin storage area, shall be conditioned upon the following:

- (1) Generally accepted engineering methodology;

- (2) a maximum annual quantity that does not exceed the recharge credits; and
- (3) an annual reporting that complies with K.A.R. 5-12-2.

(Authorized by K.S.A. 82a-706a; implementing K.S.A. 2015 Supp. 82a-711 and K.S.A. 82a-712; effective Sept. 22, 2000; amended April 29, 2016.)

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