567—50.11(455B) Conditions on water withdrawals from groundwater sources.

50.11(1) *Withdrawals from unconfined aquifers adjacent to streams.* Water withdrawals from unconfined aquifers adjacent to streams shall be subject to the following conditions:

a. Protected flow restriction. Withdrawals for consumptive uses, with the exception of CWSs, at any point within 1/8 mile (660 feet) of an interior stream shall be considered withdrawals from the stream and shall cease when the stream is below the protected flow designated in rule 567—50.15(455B) except as provided in 50.11(1)*"c"* to *"f."*

b. Seven-day, one-in-ten-year low flow (7Q10) restriction. Withdrawals for consumptive uses, with the exception of CWSs, at any point located between 1/8 mile (660 feet) and ¼ mile (1,320 feet) of a stream, other than a stream bordering the state, shall cease when the streamflow is at or below the 7Q10 as determined at the nearest downstream USGS gage, except as provided in 50.11(1)*"c"* to *"f."*

c. Missouri/Mississippi River-interior stream confluence restriction. Withdrawals for consumptive uses, with the exception of CWSs, from the alluvial aquifers below the floodplains of streams bordering the state at any point within 1/8 mile (660 feet) of any interior stream shall cease when the flow of such interior stream is at or below the 7Q10, except as provided in 50.11(1)*"d."*

d. Other conditions. Notwithstanding 50.11(1)*"a"* to *"c,"* other conditions may be imposed as necessary to ensure adequate protection of water supplies for ordinary household, livestock, and domestic uses; fish and wildlife use; recreational use; preservation and enhancement of aesthetic values; or other uses of a public nature.

e. Replacement water exemption. 50.11(1)*"a"* through *"c"* shall not apply to withdrawals for consumptive uses from an unconfined aquifer, if the permittee discharges replacement water into such stream or tributary thereto at rates sufficient to offset the consumptive withdrawals and the department approves the method and location of discharge.

f. Exemptions from low-flow restrictions. The restrictions of 50.11(1)*"a"* through *"d"* may be waived if the applicant or permittee can conclusively demonstrate, by conducting pump testing, that the withdrawal will not reduce the flow of the adjacent stream. The pump testing plan must be approved by the department prior to the testing.

50.11(2) *Withdrawals from the Cambrian-Ordovician (Jordan) aquifer.* Water withdrawals from the Cambrian-Ordovician (Jordan) aquifer, including the St. Peter sandstone formation, the Prairie du Chien group, and the Jordan sandstone formation, shall be subject to the following conditions:

a. Two-hundred-gallon-per-minute (gpm) restriction. New withdrawals of water for irrigation, recreational, or aesthetic uses shall not exceed 200 gpm. Existing permits for irrigation, recreational, and aesthetic uses that authorize withdrawal rates in excess of 200 gpm may be modified or rescinded if the department determines that any well in the vicinity experiences loss of water due to pumping or if the pumping water level is reduced to or below the levels described in 50.11(2)*"f"*(1) and 50.11(2)*"g"*(1).

b. Two-thousand-gallon-per-minute (gpm) restriction. New water withdrawals for industrial or power generation uses at a single plant location shall not exceed 2,000 gpm. Existing permits for industrial or power generation use that authorize withdrawal rates in excess of 2,000 gpm may be modified or rescinded if the department determines that any well in the vicinity experiences a loss of water due to pumping or if the pumping water level is reduced to or below the levels described in 50.11(2)*"f"*(1) and 50.11(2)*"g"*(1).

c. Limited cooling and geothermal use. No once-through (single pass with disposal to storm sewer or equivalent) cooling water or geothermal usage is allowed. Withdrawals for geothermal purposes are prohibited unless 100 percent of the withdrawn water is reinjected into the aquifer in accordance with department requirements.

d. Jordan aquifer high-capacity permits and wells. Water use permits for the Jordan aquifer shall be issued on a five-year permit cycle. A water use permit for wells expected to pump over 25,000 gallons per day from the Jordan aquifer shall be obtained from the department before any water well construction permit is issued. After a water use permit has been obtained, a county may issue a Jordan aquifer water well construction permit for any nonpublic water supply system unless that well is located in one of the protected-source areas listed in 567—subrules 53.5(2) and 53.5(3). The department may issue a Jordan aquifer water well construction permit for a public water supply system or a well located in the protected

source areas listed in 567—subrules 53.5(2) and 53.5(3). All driller's logs for water use wells completed in the Jordan aquifer shall be submitted to the department and the Iowa Geological Survey.

e. Tier 1 Jordan wells. A Jordan water use well is classified as Tier 1 when pumping water levels have not reached the Tier 2 or Tier 3 levels described in 50.11(2)*"f"*(1) and 50.11(2)*"g"*(1). Permittees with Tier 1 Jordan wells shall follow standard water use reporting procedures for the Jordan aquifer pursuant to 567—50.13(455B).

f. Tier 2 Jordan wells.

(1) A Jordan well is classified as Tier 2 when the pumping water level measured at the well declines over 300 feet below the 1978 Horick and Steinhilber potentiometric surface, or the pumping water level declines over 50 percent from the 1978 Horick and Steinhilber potentiometric surface and the top of the Jordan aquifer, whichever is more conservative.

(2) Permittees with Jordan wells that have reached the Tier 2 level shall develop a site-specific water use reduction plan and submit it to the department for review and approval. The water use reduction plan shall set a defined usage percent reduction target that will minimize Jordan aquifer withdrawals and prevent the decline of the water level from reaching the Tier 3 category pursuant to 50.11(2)*"g"*(1). If the water use reduction plan is not implemented, the department may reduce the permitted water use allocation, pursue permit enforcement, or rescind the permit.

g. Tier 3 Jordan wells.

(1) A Jordan well is classified as Tier 3 when the pumping water level measured at the well declines over 400 feet below the 1978 Horick and Steinhilber potentiometric surface, or the pumping water level declines over 75 percent from the 1978 Horick and Steinhilber potentiometric surface and the top of the Jordan aquifer, whichever is more conservative.

(2) Permittees with Jordan wells that have reached the Tier 3 level shall develop an aggressive water use reduction plan using an approved predictive model that will lead to recovery of the pumping water level to elevations above Tier 3 levels. The department shall review and approve the plan and model predictions. If water levels continue to decline beyond the Tier 3 level, the department may reduce the permitted water use allocation; pursue permit enforcement, including aspects of the water use reduction plan; or rescind the permit.

h. Waivers. Waivers from these rules will be considered by the department through the procedures found in 561—Chapter 10.

i. Plan resources. Resources for developing water use reduction plans are listed in 50.16(3)*"d."*

[**ARC 9199C**, IAB 5/14/25, effective 6/18/25]